TAMKAR AT A GLANCE:

Introduction of Group, Project's & Production's in Steel, Oil & Gas, Petrochemicals, Water & Energy, Non-ferrous, Civil, Automotive industries
ما تا به کار ایرانی و سرمایه ایرانی احترام نکشدند، تولید ملی نمی‌گیرد؛ و اگر تولید ملی نگرفت، استقلال اقتصادی این کشور تحقق نمی‌یابد؛ و اگر استقلال اقتصادی یک جامعه تحقق نبیند - یعنی در مسئله اقتصاد توانست خودش تصمیم بگیرد و روی پای خود باستد - استقلال سیاسی این کشور تحقق نمی‌یابد؛ و اگر استقلال سیاسی یک جامعه تحقق نبیند، بقیه حرفها، جز حرف، چیز دیگری نیست. 

تا یک کشور اقتصاد خود را قوی نکند، پایدار نکند، متقی به خود نکند، مستقل نکند، نمی‌تواند از لحاظ سیاسی و فرهنگی و غیره تأثیرگذار باشد.

برای مقام معظم رهبری در بازدید از کارخانجات دارویی

در تاریخ ۱ اردیبهشت ماه ۱۳۸۹
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Competition and Profitability are two important factors in industrial world today and by having some unique vantages conglomerate companies have been able to have a very outstanding role in countries’ economic development and their GNP growth. But this accomplishment always needs its own special components. Qualified management teams, using the latest technologies, being able to provide and manage the financial sources, risk management and applying the entrepreneur organizations are important factors in holding companies success. Tamkar industrial group is a conglomerate complex that has had projects and productions in steel, oil, gas, petrochemical, hydro-energy, non-ferrous, civil and automotive industries and has been able to improve Iran’s engineering capabilities and production facilities in the above-mentioned fields. Tamkar Group is a pioneer complex in production and fulfilling the industrial projects. This group includes 11 engineering companies, 2 business companies and 3 consortiums and is one of the most outstanding non-governmental industrial groups in Iran.
Fulfilling the Inland oil projects
We have been able to fulfil the projects such as partnership in construction and installation of equipment for South Pars gas field development project in phases 10, 9, 21, 20, 18, 17, 16, 15, 12 and construction and installation of equipment for Persian Gulf shipbuilding complex.

Production of various reformer tubes
We have been able to produce reformer tubes with centrifuge method. This strategic product has a leading role in petrochemical and steel industries. Various reformer tubes made of super Nickle alloy in 3 to 12 inches diameter are being constructed in plants of this complex.

Casting and tool production
Special tool like swept bends and various industrial valves especially Ball Valves with the dimension of up to 56 inches are being made in the plants of this industrial group.

Hydro-energy industries

Execution of mechanical and electrical equipment for different dams and water transmission network.
We have executed more than 167 projects successfully since 1994. Mechanical and electrical equipment were manufactured in national projects like the followings: Khoda Afarin Dam, Getond Alia, Sivand, Ghiz Ghale Si, Chah Nime, REis Ali Delvari, Talvar, Karkhe, Ghale Chah Ajab Shir, Abbasi pour .

Running the construction projects of water and wastewater treatment plants
We have constructed two water treatment units for steel factories to be used and developed North of Isfahan water treatment plant from 0.4 to 1.2 million people and have run 9 other projects in this field since 1996.

Production of equipment and parts of Hydro-electric turbines
We made Wicket Gate parts whose 24-piece set of it is used for adjustment of the turbine's runner input water. These components are all approved by Alstom and Vioth Siemens and have been used in Seymareh, Karoon4, Gatvand and Masjedsoleyman dams.

Production of equipment and parts of 660 kw wind turbines
In partnership with Sadid Saba Niroo Company, we have been able to construct the main parts and component of 123 660 kw wind turbines.
Tamkar industrial group activities in Iran’s infrastructural industries

Steel Industry

- Establishment of steel factories as turnkey projects:
We are honored to have accomplished 4 national development projects in the form of Tamkar Co. and Mikasazeh Co. consortium (Chaharmahal and Bakhtiari Province Automotive Sheet Project and development of alloy steel in Iran) and Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium (expansion project of Saba Steel Making and Continuous-rolling Plant and increasing the capacity of steel plant unit of Esfahan’s Mobarakeh Steel Company).
We have fulfilled it in partnership with the biggest designing steel companies in the world such as Danieli and Tenova that has led to these improvements:
- Increasing the capacity of Saba Steel Making and Continuous-rolling Plant from 0.7 to 1.6 million tons per a year
- Increasing the capacity of production of alloy steel in Iran from 200000 tons to 400000 tons per year
- Establishing Chaharmahal and Bakhtiari Province Automotive Sheet Factory with the production capacity of 400000 tons a year

- Designing and making production machinery and equipment for steel industry
We have been able to fulfill more than 58 projects since 1997 in most of steel factories in Iran such as, Esfahan’s Mobarakeh Steel Company, khoozestan Steel, Hormozgan Steel, Oxin Steel and...
These projects have included more than 62000 tons machinery and equipment making and more than 37000 tons machinery and equipment installation. Moreover major projects like them which are listed above are still being run by Tamkar Industrial Group Factories.

Oil, gas and petrochemical industries

- Designing and constructing CNG filling stations
We have been able to construct more than 300 CNG filling stations all over the country since 2000 which are being used now. Technologies of top companies in the world are used in designing and constructing the equipment in these stations, companies like MAN FIA and Green Field.

- Fulfilling the offshore projects
Tamkar Company was one of the first ones which entered marine industries arena for reconstruction and developing the oil rigs right after the imposed war and this is one of our honors. This complex have been succeeded at running lots of projects such as reconstruction of Aboozar oil rigs, construction of P4 Jacket which is the biggest oil jacket in the middle east (installed in Reshadat oil field), construction of Stinger Structure of Aboozar 1200 tubing watercraft, and other projects of these kinds. It is estimated that these projects have included more than 22000 tons equipment construction and installation.
a semi-circle mega-structure with 60 meters height, internal diameter of 90 meters and arches along with protrusions of 9 meters, overall weight of 2500 tons and very strong bolt and nut connections (class10.9)

Automotive Industry

- production of head cylinders for vehicles
Considering the increasing production of vehicles in Iran and the need for making the necessary infrastructure for manufacturing the national engine, Tamkar industrial group established a factory for production of cylinder heads for vehicles in partnership with Sepahan Atlas Pump Company in 2009. This factory is active now with the annual Capacity of 500000 head cylinders a year.
Tamkar industrial group activities in Iran's Infrastructural industries

Non-ferrous mineral industry
- Production of Marble stone processing machinery
  Rich supplies of decorative stones despite of old and worn-out stone processing industry in Iran led us to manufacture the stone processing machines in Iran using the state-of-art technologies in the world. We have manufactured various marble stone processing machines using Italian Company; Berton’s technology since 2005 which is one of the most reliable companies in designing and manufacturing machinery necessary for decorative stones industry in the world.
  Some of these machines are 80bladed Pila, sub-slab machine and CNC Frez. We are proud to say that our machinery is being used not only in Iran but in Italy.
- Designing and production of clay and brick lines
  Designing and production of clay and brick lines is one of the livelong and nonstoppable activities of Tamkar industrial group. Having had productivity and quality as its objectives this group has had a leading role in this field.
  We have been able to construct and launch 350 clay and brick lines and even export them to the neighboring countries during all these years.
- Designing and production of cement factories components and machinery
  We have fulfilled 13 projects for cement factories abroad and 2 projects for factories in Iran since 2002.
- Manufacturing of all kinds of gears up to 10 meters diameters
  Tamkar industrial group has started to buy Gear Cutting Machines from European countries since 2004, Because of the need of the country to gearwheels with high diameters. During these years this company has helped lots of industries in Iran to go on via the production of the gearwheels with the diameter of up to 10 meters and module of 42.

Civil industries
- Construction of steel mega-structures
  Having considered the huge and unique projects Tamkar industrial group has had in steel mega-structure field, this complex is counted as one of the most reliable contractors of steel mega-structure construction in Iran.
  Some of these projects are:
  - Construction project of Chaharmahal and Bakhtiari province automotive sheet mega-structure with maximum height of 62m and maximum span length of 40m and overall weight of 8000 tons
  - Construction project of two mega modules of direct reduction for Shahid Kharazi development plan in Mobarakeh Steel Company with 82 meters height, 32 meters width, 25 meters length and overall weight of 8000 tons and very strong bolt and nut connections (class10.9)
  - Construction project of Isfahan’s international conferences center in form of
Some of the best projects and products of Tamkar Industrial Group

In steel industry

• Designing and construction of desulphurization vessels for Khoozestan Steel direct reduction unit for the first time in Iran
• Reaching the technology of various Positive Displacement Blowers and making Iran to forth country in the ranking world’s countries list of Positive Displacement Blower producers
• Manufacturing the electrical arc furnaces with the capacity of 200 tons per hour
• Production of various reformer tubes and connections which are necessary for direct reduction units for the first time in the

middle east

• Construction of the structure and furnace of first and second mega modules in Iran and 7th and 8th in the world regarding the production capacity
• Production of wagons for carrying the pellets for the first time in the Middle East
• Construction and installation of the biggest cooling bed in the middle east
• Production of transfer ladles for molten material with the capacity of 200 tons for the first time in Iran
• Production of Ladle Transfer Car With Tilting Device for the first time in Iran
• Production of the biggest Ladle Transfer Car in Iran with transporting capacity of 300 tons
• Production of the biggest ladle lifting car in Iran
• Production of moving roller table for the cutting units for the first time in Iran
• Production of Stacker / Reclaimer machines for the first time in Iran
• Production of direct reduction of reformer torches for the first time in Iran
• Production of super alloy components with the base material of nickel, cobalt and chromium
• Production of transfer ladles for slag with the capacity of up to 17 cubic meters in accordance with international standards

In oil, gas and petrochemical industries

• Construction of P4 Jacket which is the biggest oil jacket in the Middle East (installed in Reshadat oil field)
• Construction of Stinger Structure of Aboozar 1200 tubing watercraft for the first time in Iran
• Production and Shipment of 188 crossing support pipe lines in offshore area in an incredible time line.
• Manufacturing a various range of ball Valves with the diameter of up to 56 inches for the first time in the Middle East
• Production of various reformer connections for the first time in the middle east
• Production of various CNG filling station compressors with the capacities of 30 to 2000 cubic meters per hour and maximum output pressure of 501, for the first time in Iran
• Designing and construction of CNG filling stations with the capacity of 250 cubic meters per hour and capability of installation off the ground in the heights for the first time in Iran
• Establishment of a monitoring center for CNG filling stations in Pardis Technology Park for the first time in Iran
• Designing and construction of small CNG filling stations with the capacity of 5 and 24 cubic meters per hour in partnership with Italian company for the first time in Iran

In non-ferrous mineral industry

• Manufacturer of the most developed stone processing machinery (slab production line) in the Middle East with Italian company of Berton
• The first exporter of stone processing machinery (slab production line) in the Middle East to European union (Italy)
• The first designer and manufacturer of brick and clay making machines in Iran
• Manufacturer of the most developed brick and clay making machines in Iran
• the only designer and manufacturer of gearwheels with the diameter of up to 10 meters in the Middle East

Hydro-energy

• Production of equipment and parts of 660 KW wind turbines for the first time in Iran
• Manufacturing the wicket gate components and parts which are used in hydro-electric power plant

Civil Industry

• Construction of Isfahan’s international conferences center which is the biggest and the most complicated steel formed structure in Iran
Tamkar Industrial Group’s achievements and honors

- Top Industrial Unit of the Country 2002
- Top Industrial Unit of Isfahan 2002
- Top Industrial Unit of Isfahan 2007
- Top contractor of Isfahan 2013
- TOP Brand of Isfahan 2011
- Non-ferrous Industry’s Top Industrial Engineer 2010
- Top Entrepreneur of the Country 2014
- Megastructures Top Contractor 2014
- The member of Elite Technology Development Center

Tamkar Industrial Group Standards

- Environmental Management Standard ISO 14001 2014
- Customer Satisfaction and Complaints Handling Standard ISO 10002 2004
- Health, Safety and Environmental management system standard HSE-MS
- Quality Management Standard in oil, gas and petrochemical industries ISO/ TS 29001 2010
- Quality Management Standard ISO 9001 2008
Tamkar Industrial Group at a glance
Tamkar Industrial Group’s range of production facilities
• Various Lathe Machines with the length of up to 16 meters and the diameter of up to 2 meters
• Various boring machines with the length of up to 12 meters and the weight
• Various carousel machines with the diameter of up to 52 meters and the weight of up to 60 tons
• Various milling machines with the length of up to 6 meters
• Various gear cutting machines with the diameter of up to 10 meters and the module of 42
Tamkar Industrial Group at a glance

- Various CNC, Plasma and Rail Cutting machines with the length of up to 12 meters and width of up to 6 meters and cutting thickness of up to 300 mm
- Various Rollers with the width of up to 3 meters and the thickness of up to 60 mm
- Various Welding machines, GMAW, SAW and SMAW Welders with the weld length capacity of 31200 meters per a month
A scope of Tamkar Industrial Group’s casting and heat processing facilities

- Various heating furnaces with the length of up to 14 meters and the width of 6 meters and height of up to 7 meters and the capacity of 150 tons
- Various medium-frequency induction furnaces made in UK and electric arc furnaces (EAF) made in Switzerland
- The casting capability of various steel and cast-iron
Tamkar Industrial Group at a glance
Tamkar Industrial Group at a glance
26  Steelmaking processes

28  Tamkar Industrial Group achievements according to steel making sequence of steps

30  Tamkar Industrial Group’s projects in steel factories

32  The projects that have done by Tamkar Industrial Group under EPC contracts
Steel Industry

The scope of activities
Tamkar Industrial Group

- Steel making and continuous casting
  - Slab continuous casting
  - Billet and bloom continuous casting

- Hot rolling
  - Hot rolling unit
  - Hot deep galvanized Sheet line

- Cold rolling unit
  - Color coating line
  - Tin plating line
  - Cutting line

- Other rolling processes
  - Electric washing line

- Steel making and continuous casting hot rolling cold rolling and other rolling processes
Steelmaking processes

- Iron ore concentrate
- Rotary car dumper
- Stacker/reclaimer Unit
- Direct reduction Unit
- Pelletizing Unit
Manufacturing the Sponge iron storage silos

Production of transferring slab tables

Production of various ladle transfer cars

Production of transferring slab tables for the cutting unit

Manufacturing the tunnel furnaces and shuttles

Production of radiant tubes

Manufacturing The scrap silos

Production of pellet transfer wagons

Construction of furnaces and structures for direct reduction unit

Reformer tubes production

Compressor blower manufacturing

Production of transfer ladles for molten materials

Production of transfer ladles for slags

Production of transfer ladles for slags

Production of radiant tubes

Production of various ladle transfer cars

Production of radiant tubes

Production of various ladle transfer cars

Production of radiant tubes

Production of various ladle transfer cars

Production of radiant tubes
Tamkar Industrial Group achievements according to steel making sequence of steps

**Raw material area**
- Stacke/reclaimer machine manufacturing
- Manufacturing the gearwheels for rotary car machines

**Iron making**
- Manufacturing the pelletizing disks
- Screening rollers manufacturing

**Steel making unit**
- Electric arc furnaces (EAF) manufacturing
- Ladle furnace manufacturing

**Continuous casting unit**
- Ladle tilting pylon
- Production of various transferring machinery

**Hot rolling**
- Production of the equipment for preheat furnaces
- Production of the equipment for hot rolling mill stands

**Cold rolling and other rolling processes**
- Production of the equipment for acid washing line
- Manufacturing the coil opener and coil winding machines
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<td>Mobarake steel:</td>
<td>Establishment date: 1982&lt;br&gt;Production capacity: Developing from 5.4 to 7.2 ml tons a year&lt;br&gt;Product: Steel sheet</td>
<td>TAMKAR PROJECT</td>
</tr>
<tr>
<td>Saba Steel Making and Continuous-rolling Plant:</td>
<td>Establishment date: 2003&lt;br&gt;Production capacity: Developing from 0.7 to 1.6 ml tons a year&lt;br&gt;Product: Steel sheet</td>
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<tr>
<td>Isfahan steel company:</td>
<td>Establishment date: 1966&lt;br&gt;Production capacity: 2 ml tons a year&lt;br&gt;Product: Iron beams and angles</td>
<td>TAMKAR PROJECT</td>
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<tr>
<td>Hormozgan steel:</td>
<td>Establishment date: 2009&lt;br&gt;Production capacity: 1.5 ml tons a year&lt;br&gt;Product: Steel slabs</td>
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<td>Khoozestan steel:</td>
<td>Establishment date: 1988&lt;br&gt;Production capacity: 3.2 ml tons a year&lt;br&gt;Product: Billets and blooms</td>
<td>TAMKAR PROJECT</td>
</tr>
<tr>
<td>Oxin steel</td>
<td>Establishment date: 2010&lt;br&gt;Production capacity: 1.5 ml tons a year&lt;br&gt;Product: Steel sheet</td>
<td></td>
</tr>
<tr>
<td>Iran alloy steel:</td>
<td>Establishment date: 2000&lt;br&gt;Production capacity: Developing from 0.2 to 0.4 ml tons a year&lt;br&gt;Product: Billets</td>
<td></td>
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<tr>
<td>Chadormaloo Steel:</td>
<td>Establishment date: According to the schedule 2015&lt;br&gt;Production capacity: 1 ml tons a year&lt;br&gt;Product: Billets and blooms</td>
<td>TAMKAR PROJECT</td>
</tr>
<tr>
<td>Golgohare sirjan</td>
<td>Establishment date: According to the schedule 2015&lt;br&gt;Production capacity: 1.6 ml tons a year&lt;br&gt;Product: Sponge iron</td>
<td></td>
</tr>
<tr>
<td>Chaharmahal and Bakhtiari Province Automotive Sheet:</td>
<td>Establishment date: 2010&lt;br&gt;Production capacity: 0.4 ml tons a year&lt;br&gt;Product: Galvanized automotive sheet</td>
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</table>
The projects that have been done by Tamkar Industrial Group under EPC contracts include:

**Mobarake steel complex**
Designing, providing, manufacturing, installation, testing and launching the equipment for increasing the maximum capacity of steelmaking unit from 5.4 to 7.2 million tons a year under an EPC contract.

**Saba Steel Making and Continuous-rolling Plant**
Designing, providing, construction, manufacturing, installation, testing and launching the equipment for increasing the capacity of Saba Steel Making and Continuous-rolling Plant from 0.7 to 1.6 million tons a year under an EPC contract.
The projects that have been done by Tamkar Industrial Group under EPC contracts:

Chaharmahal and Bakhtiari Province Automotive Sheet
- Doing the engineering, construction, civil, steel structure construction, installation, and launching the galvanized suspension cranes
- 12 automotive sheet production line and manufacturing

Iran alloy steel company
- Development project of increasing Iran alloy steel company’s capacity from 200000 to 400000 tons under an EPC contract
### Stacker/reclaimer unit

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<td>Manufacturing the stacker and reclaimer machines for development project of Isfahan Steel Company</td>
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<td>Manufacturing the various gearwheels with the diameter of up to 10 meters for Stacker/reclaimer machines and rotary car dumpers (see the gearwheels part in non-ferrous mineral industry)</td>
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### Sponge iron silos

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<td>40</td>
<td>Manufacturing 6 sponge iron silos for development project of Mobarake Steel Company</td>
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<tr>
<td>40</td>
<td>Manufacturing 6 sponge iron silos for development project of Saba Steel Making and Continuous-rolling Plant</td>
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### Active companies at this field:

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<th>MTS consortium</th>
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Steel Industry

Raw material area
Stacker and reclaimer machines

Project’s title:
Manufacturing the stacker and reclaimer machines for development project of Isfahan Steel Company
Employer: Ghayemereza Industry Company
Date of project: 2006-2004
Installation location: Esfahan Steel Company

STACKER
Type: Floor type double boom
Capacity: 1200 ton/h
Stock pile Capacity: 80000-750000 ton of iron ore
Method of Stacking : Chevron

RECLAIMER
Capacity: 600 ton/h
Method of Reclaiming: Harrow
Sponge iron storage silos

Project's title:
Manufacturing 6 sponge iron silos for development project named 7.2 ml tons
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Tenova Company
Date of project: 2012
Installation location: Mobarake Steel Company

Project's title:
Manufacturing 6 sponge iron silos for development project of Saba area
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Danieli Company
Date of project: 2012
Installation location: Saba Steel Making and Continuous-rolling Plant
Pelletizing Unit

44  Manufacturing & installation of pelletizing disks for Sirjan’s Golgohar complex

46  Pellet transfer car manufacturing for direct reduction unit

Direct reduction Plant

48  Manufacturing the furnace and structure of 2 mega modules for direct reduction unit of Esfahan’s Mobarakeh Steel Company

52  Reformer tubes production

54  Positive Displacement Blower manufacturing for direct reduction unit

56  Designing and manufacturing 20 desulfurizing tanks for Khoozestan Steel Company

Active Tamkar Industrial Group members at this field:

| Tamkar company         | Isfahan Akhgar Steel Company | Pishro Sepahan alloy Steel Company | Petrokav Ariyan Company |
Steel Industry

Iron making area
Pelletizing area

Pelletizing disks
Project’s title: Manufacturing and installation of 9 pelletizing disks
Employer: Kayson Company
Project’s date: 2015-2014
Installation location: Sirjan’s Golgohar2 Steel Company
Capacity: 120 to 150 tons per hour
Rotating disk’s diameter: 7500mm

Project’s title: manufacturing and installation of 9 pelletizing disk machines
Employer: Tive Energy Company
Project’s date: 2014
Installation location: Sirjan’s Golgohar2 Steel Company

General information

General Principles of pelletizing is included of mixing iron ore concentrate, water and the adhesive material together, then rotating them in special disks. balls with diameter of 6 to 16 mm are produced due to surface tension property through this process. These balls are called pellets.
Pellet transfer car

Title: pellet transfer car
Made of: low-alloy steel and resistant to creep (deformation)
Partnership: Isfahan Alloy Steel Company
Installation locations: Mobarake Steel Company, Golgohar Steel Company in Sirjan, Mondovi pelletizing plant in India

Transferring the raw pellets to the furnaces of pelletizing unit is done by a line of 220 transfer pellet wagons. Raw pellets are heated at 1250 to 1300 C degrees and in the end are unloaded on the cooling bed. These wagons weigh from 8.5 to 10.5 based on their type.

Iron making
Shahidkharazi direct reduction project

Project’s title: Manufacturing the furnace and structure of 2 mega modules for direct reduction unit
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 2010 TO 2012
Installation location: Esfahan-s Mobarakeh Steel Company
Structure-s height: 82 meters

Shahidkharazi direct reduction unit is one of the biggest and most developed sponge iron producing plants in Iran and 7th direct reduction unit in global list regarding the production capacity which has two direct reduction mega moduls (with midrex method), each with the capacity of 1.5 ml tons sponge iron a year
Sponge iron storage silos
Reformer tubes

Title: reformer tubes
Made of: super alloy Ni-base and high alloy steel
Installation location: Esfahan’s Mobarakeh Steel Company

Reformer tubes are located at the center of direct reduction unit (with midrex method). These tubes are resistant to 1070 to 1100 °C degrees heat.
This blower is the positive displacement type and has 2 lob-rotors and can be utilized with impure gases which have solid and liquid particles. This blower is designed for heavy duty work condition and its output gas is oil-free.

Pressure difference: up to 800 ml bar
Positive pressure difference: up to 1500 ml bar
Displacement speed: 300 to 500 rotations per minute
Debye of 100000 cubic meters per hour

Iron making
Desulfurizing tanks

Project's title:
Designing and manufacturing 20 desulfurizing tanks
Employer: Tarhogostar Engineering Company
Project's date: 2009 to 2011
Installation location: Khoozestan Steel Company’s direct reduction Unit

For the first time in Iran desulfurizing with molecular absorption method was done in 5 modules (3 Midrex and 2 Zamzam modules) of Khoozestan Steel’s direct reduction unit. Desulfurizing process is done using 4 tanks in each module, each with the capacity of 50 cubic meters and 20 tanks in 5 modules in total.

Iron making
EPC projects

62 Increasing the maximum capacity of steelmaking unit in Esfahan’s Mobarakeh Steel Company from 5.4 to 7.2 ml tons a year under an EPC contract

68 Increasing the maximum capacity of Saba steelmaking and continuous rolling unit in Esfahan’s Mobarakeh Steel Company from 700000 tons to 1.6 ml tons a year

80 In billet production: Development project of capacity of Iran Alloy Steel Company from 350000 tons to 600000 tons a year

Machinery designing and manufacturing

88 Machinery designing and manufacturing fields

90 Electric arc furnace manufacturing

Manufacturing the transfer ladles for molten materials

92 Manufacturing the various transfer machines, including ladle transfer cars, slag pot transfer cars, scrap bucket, tundish, slab and segment transfer cars

94 Manufacturing the Slag pots

108 Manufacturing the ladle tilting pylons

112 Dummy bar manufacturing

114 Manufacturing the roller tables

118 Cooling bed manufacturing

Active Tamkar Industrial Group’s members at this field

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Increasing the maximum capacity of steelmaking unit in Esfahan’s Mobarakeh Steel Company from 5.4 to 7.2 ml tons a year under an EPC contract.

Increasing the maximum capacity of Saba steelmaking and continuous rolling unit in Esfahan’s Mobarakeh Steel Company from 700000 tons to 1.6 ml tons a year.

In billet production: Development project of capacity of Iran Alloy Steel Company from 350000 tons to 600000 tons a year.

Machinery designing and manufacturing fields.

Electric arc furnace manufacturing.

Manufacturing the transfer ladles for molten materials.

Manufacturing the various transfer machines, including ladle transfer cars, slag pot transfer cars, scrap bucket, tundish, slab and segment transfer cars.

Manufacturing the Slag pots.

Manufacturing the ladle tilting pylons.

Dummy bar manufacturing.

Manufacturing the roller tables.

Cooling bed manufacturing.
Steel Industry

Steelmaking and continuous casting
In slab production unit
Increasing the maximum capacity of steelmaking unit in Esfahan’s Mobarakeh Steel Company from 5.4 to 7.2 ml tons a year under an EPC contract

Project’s main Features:
This project was started in 2011 and is going to be completed in 2015
Employer: Esfahan’s Mobarakeh Steel Company
Foreign Partner: TENOVA
Partner: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Maximum capacity increase: from 5.4 to 7.2 ml tons a year under an EPC contract
Main raw material: sponge iron, steel scraps
Cast products: slabs with the length of up to 10 meters and thickness of 200 mm

Map legend:
1 NO.1 and NO.2 Electric Arc Furnaces (EAF)
2 NO.7 and NO.8 Electric Arc Furnaces (EAF)
3 NO.7 Ladle Furnace
4 NO.7 Ladle Furnace
Tamkar Industrial Group
5 Electrification Tunnel
6 FTP system
7 Sponge iron silos
8 Underground Water Storage Tank
The Scope of our activities:
Designing, providing, manufacturing, installation, testing and launching the equipment for increasing the maximum capacity of steelmaking unit in Esfahan’s Mobarakeh Steel Company from 5.4 to 7.2 ml tons a year

Project main equipment:
This project includes formation of NO.7 and NO.8 Ladle Furnaces, scrap storage, transfer and charging systems, feeding system for scrap, sponge iron and lime, electrification tunnel to ladle furnaces with the length of 1500 meters, 6 sponge iron storage silos and development of NO.1, NO.2, NO.7 and NO.8 electric arc furnaces (EAF) with the capacity of 200 tons per hour
توضيحات:

1. Transfering the main body of electric arc furnace
2. Electric arc furnace's capacitors and electrical substations
3. Installation of the main body of electric arc furnace
4. Electric arc furnace in operation with the capacity of 200 tons
5. Electric arc furnace electrodes

Steelmaking and continuous casting
EPC projects
1. Ladle Furnace with the capacity of 200 tons
2. Cooling tower
3. Electrification Tunnel with the length of 1500 mete
4. FTP system
5. Sponge iron silos

Steelmaking and continuous casting
EPC projects
In Thin slab production area
Increasing the maximum capacity of Saba steelmaking and continuous rolling unit in Esfahan’s Mobarakhe Steel Company from 700000 tons to 1.6 ml tons a year under an EPC contract

Project’s main Features:
This project was started in 2011 and is going to be completed in 2015
Employer: Esfahan’s Mobarakhe Steel Company
Foreign Partner: Danieli
Partnership: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Maximum capacity increase: from 700000 tons to 1.6 ml tons a year under an EPC contract
Main raw material: sponge iron, steel scraps
Cast products: thin slabs with the thickness of 55 mm to 60 mm and the weight of up to 25 tons
Final products: hot coils with the width of 800 to 1500 mm and the thickness of 1.5 to 12.7 mm

Map legend:
1. sponge iron storage silos
2. FTP systems
3. Electric arc furnace
4. Ladle furnace
5. Continuous thin slab casting machine
6. Tunnel furnace and shuttle
7. 7th rolling mill stand
The Scope of our activities:
Designing, providing, construction work, manufacturing, installation, testing and launching the equipment for increasing the maximum capacity of saba steelmaking and continuous rolling unit in Esfahan’s Mobarakeh Steel Company from 0.7 to 1.6 ml tons a year

Project’s main equipment:
This project includes the revamping of the existing unit and manufacturing one electric arc furnace with the capacity of 175 tons with all related systems, one ladle furnace with the capacity of 175 tons transfer ladles for molten materials, scrap storage, transfer and charging systems, feeding system for scrap, sponge iron and lime, degasification system, equipment for leading the materials to the furnaces, Tunnel furnace and shuttle, 7th rolling mill stand and support and repair unit.
1. sponge iron storage silos
2. scrap silos
3. FTP system
4. water treatment unit

Steelmaking and continuous casting
EPC projects
Steelmaking and continuous casting

1. electric arc furnace
2. ladle’s preheating part
3. ladle furnace
4. ladle furnace
1. Ladle tilting pylon
2. Tundish
3. Slab cutting shears
4. Automation unit

Steelmaking and continuous casting
EPC projects
1. Tunnel furnace
2. shuttle
3. rollong mill stands
4. coil winding machines

Steelmaking and continuous casting
EPC projects
1. Tunnel furnace’s chimney which 50 meters high and has the diameter of 2 meters
2. Continuous casting machine’s foundation
3. Tunnel furnace and shuttle’s foundation

Steelmaking and continuous casting
EPC projects
Project’s main Features:
The project’s contract was signed in 2009 and was started in 2010 and completed in 2013 in melting part and in 2014 in casting part
Employer: Iran Alloy Steel Company
Foreign Partner: Danieli
Partnership: Tamkar Co. and Mikasazeh Co. consortium
Maximum capacity increase: from 350000 tons to 600000 tons a year under an EPC contract
Main raw material: sponge iron, steel scraps
Cast products: billets with the diameter of 120, 130, 150, and 180 mm and the length of up to 12 meters

Map legend:
1. Electric Arc Furnace (EAF)
2. Ladle Furnace
3. continuous billet casting machine
4. FTP system
5. Sponge iron silo and material transferring system
6. Raw materials warehouse
The Scope of our activities:
Designing, providing, testing and delivering the machine parts to Iran Alloy Steel Company and installation, testing and launching a casting and melting unit to raise the production capacity of Iran Alloy Steel Company from 350000 tons to 600000 tons a year.

Project’s main equipment:
This project includes one electric arc furnace with the capacity of 40 tons, one ladle furnace with the capacity of 40 tons, a material transferring system, FTP, and a 4-strand continuous billet casting line with the maximum speed of 4.6 meters per minute.
1. Electric arc furnace
2. Ladle furnace
3. Ladle tilting pylon
4. Automation unit

Steelmaking and continuous casting
EPC projects
1. strand continuous billet casting machine
2. Billet cutting machine
3. billet’s cooling bed
4. material transferring system

Steelmaking and continuous casting
EPC projects
1. water transferring system and cooling pylon
2. FTP
3. FTP
4. electrification

Steelmaking and continuous casting
EPC projects
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Tamkar Industrial Group
Manufactured machines divided based on type and installation location

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<td>Hormozgan Steel Company</td>
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<td></td>
<td>Roller table</td>
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<td></td>
<td>Cooling beds</td>
</tr>
</tbody>
</table>
Electric arc furnace manufacturing

Project title: manufacturing 6 electric arc furnace with the capacity of 200 tons per hour for development project named 7.2 ml tons
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Tenova
Project’s date: 2014
Installation location: Esfahan’s Mobarakeh Steel Company

Production capacity of these furnaces is 200 tons molten steel with transformer power of 140 MVA
Total melting time from last discharge of molten materials to the next discharge in case of using mixed metal charge is 90 minutes
Manufacturing the transfer ladles for molten materials

Project title: manufacturing 6 ladles for transferring the molten materials with the capacity of 200 tons for development project named 7.2 ml tons
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Tenova
Project’s date: 2014
Installation location: Esfahan’s Mobarakeh Steel Company

Project title: manufacturing 8 ladles for transferring the molten materials with the capacity of 175 tons for development project named saba
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Danieli
Project’s date: 2014
Installation location: Saba steelmaking and continuous rolling plant

Project title: manufacturing 2 ladles for transferring the molten materials with the capacity of 175 tons for development project named saba
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Danieli
Project’s date: 2013
Installation location: Saba steelmaking and continuous rolling plant

Steelmaking and continuous casting
Manufacturing the ladle transfer cars

Project title: manufacturing 6 ladle transfer cars (LF,EAF,MAINTENANCE)
Employer: Iran International Engineering Company (IRITEC)
Designer: Sms Demag Company
Project’s date: 2009 to 2010
Installation location: Hormozgan Steel Company

ladle transfer cars with 2 Project title: manufacturing tilting device for the degasification project
Employer: Tuka Company (EPC)
Designer: Sms Demag Company
2011 to 2010 :Project’s date
Installation location: Esfahan’s Mobarakeh Steel Company
Machinery designing and manufacturing
Manufacturing the ladle transfer cars

Project title: manufacturing 2 ladle transfer cars for development project named 7.2 ml tons
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Tenova
Project’s date: 2013
Installation location: Esfahan’s Mobarakeh Steel Company

Project title: manufacturing 3 ladle transfer cars for development project of Saba area
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Danieli
Steelmaking and continuous casting
Project’s date: 2013
Installation location: Saba steelmaking and continuous rolling Plant
Manufacturing the ladle transfer cars

Project title: manufacturing 7 cast iron transfer car
Employer: Esfahan Steel Company
Project’s date: 2014 to 2015
Installation location: Esfahan Steel Company

Every cast iron transfer car has the capacity of 100 tons including 40 tons ladles and 60 tons cast iron
Manufacturing Tundish transfer cars

Project title: manufacturing 1 Tundish transfer car for development project of NO.5 casting machine of Esfahan Steel Company
Employer: Esfahan Steel Company
Designer: Danieli
Project’s date: 2013
Installation location: Esfahan Steel Company

Project title: manufacturing 1 Tundish transfer car for development project of Saba steelmaking
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Danieli
Project’s date: 2013
Installation location: Saba steelmaking and continuous rolling Plant

Manufacturing Tundish transfer cars

Project title: manufacturing 2 Tundish transfer car with lifting system
Employer: Iran International Engineering Company (IRITEC)
Designer: Sms Demag Company
Project’s date: 2008 to 2009
Installation location: Hormozgan Steel Complex

Project title: manufacturing 1 Tundish transfer car
Employer: Khouzestan Steel Company
Project’s date: 2002 to 2003
Installation location: Khouzestan Steel Company

Steelmaking and continuous casting

Steel
Manufacturing the slab, segment transfer machines

Project title: manufacturing 1 slab transfer car
Employer: Iran International Engineering Company (IRITEC)
Designer: Sms Demag Company
Project’s date: 2009 to 2010
Installation location: Hormozgan Steel Complex

Project title: manufacturing 1 segment transfer car
Employer: Tooka Steel Company
Designer: Sms Demag Company
Project’s date: 2004
Installation location: Esfahan’s Mobarakhe Steel Company

Manufacturing the scrap bucket transfer cars
Tamkar Industrial Group

Project title: manufacturing 2 scrap bucket transfer cars for development project of Sba area
Employer: Tamkar Co.,Sepahan Safa Steel Co. and Mikasazeh Co. consortium Designer: Danieli Company
Project’s date: 2013
Installation location: Saba steelmaking and continuous rolling Plant

Project title: manufacturing 1 scrap bucket transfer car
Employer: Iran International Engineering Company (IRITEC)
Designer: Sms Demag Company
Project’s date: 2009 to 2010
Installation location: Hormozgan Steel Complex
Manufacturing the Slag pot transfer cars and other equipment

Project title: manufacturing the machinery and equipment for degasification project, including
Slag Pot Car
Ladle Lifting Frame & Guide Unit
Traverse

Employer: Tooka Company (EPC)
Designer: Sms Demag Company
Project’s date: 2010 to 2011
Installation location: Esfahan’s Mobarakeh Steel Company

Steelmaking and continuous casting
Manufacturing the Slag pots

Project title: Slag pots
Made of low carbon and deformation resistant steel
Partner: Esfahan Steel Company
Installation locations: Esfahan’s Mobarakeh Steel Company, Khoozestan Steel Company, Saba steelmaking and continuous rolling Plant and Esfahan Steel Company
Manufacturing the ladle cover manipulator

Project title: manufacturing 2 ladle cover manipulator machines
Employer: Iran International Engineering Company (IRITEC)
Designer: Sms Demag Company
Project’s date: 2009 to 2010
Installation location: Hormozgan Steel Complex

Steelmaking and continuous casting
Manufacturing the ladle tilting pylons

Project title: manufacturing the ladle tilting pylon for development project of NO.5 casting machine of Esfahan Steel Company
Employer: Esfahan Steel Company
Designer: Danieli
Project’s date: 2014
Installation location: Esfahan Steel Company

Project title: manufacturing the ladle tilting pylon for development project of Saba area
Employer: Esfahan Steel Company
Designer: Danieli
Project’s date: 2014
Installation location: Saba steelmaking and continuous casting rolling Plant
Project title: manufacturing 2 dummy bars

Tamkar Industrial Group
Employer: Iran International Engineering Company (IRITEC)
Designer: Sms Demag Company
Project’s date: 2009 to 2010
Installation location: Hormozgan Steel Complex

Steelmaking and continuous casting
Dummy bar manufacturing

Project title: Dummy bar manufacturing for development project of NO.5 casting machine of Esfahan Steel Company
Employer: Esfahan Steel Company
Designer: Danieli
Project’s date: 2014
Installation location: Esfahan Steel Company

Project title: Dummy bar manufacturing for development project of Sba area
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Danieli
Project’s date: 2014
Installation location: Saba steelmaking and continuous rolling area
Manufacturing the torch cutter shifting roller tables

Tamkar Industrial Group
Project title: manufacturing the following equipment for development project of NO.5 casting machine of Esfahan Steel Company

Intermediate Roller Table
Cutting Area Roller Table

Employer: Esfahan Steel Company
Designer: Danieli
Project’s date: 2014
Installation location: Esfahan Steel Company

Steelmaking and continuous casting
Manufacturing the torch cutter shifting roller tables

Project title: manufacturing the torch cutter shifting roller table
Employer: Tooka Steel
Project’s date: 2009 to 2010
Installation location: Esfahan’s Mobarakheh Steel Company

Project title: manufacturing the torch cutter shifting roller table
Employer: Behinehfaraz Kiyan
Project’s date: 2014
Installation location: Esfahan’s Mobarakheh Steel Company

Steelmaking and continuous casting
Manufacturing the roller tables

Project title: manufacturing 2 slab roller tables
Employer: Esfahan Steel Company
Project's date: 2009 to 2010
Installation location: Saba steelmaking and continuous rolling area

Project title: manufacturing 2 slab roller tables for development project of Sba area
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium
Designer: Danieli
Project's date: 2014
Installation location: Saba steelmaking and continuous rolling area

Steelmaking and continuous casting
Cooling bed manufacturing

Project title: manufacturing the walking beam section for development project of NO.5 casting machine of Esfahan Steel Company
Employer: Esfahan Steel Company
Designer: Danieli
Project’s date: 2014
Installation location: Esfahan Steel Company

Project title: manufacturing the equipment for the casting section and cooling bed in Chadormaloo Steel Plant
Employer: Pamid co.
Designer: Danieli
Project’s date: 2012 to 2015
Installation location: Chadormaloo Steel Company
Machinery designing and manufacturing

122 Designing and manufacturing of the equipment for Oxin Steel plant

126 Manufacturing tunnel furnace and shuttle for development project of Sba area

128 Designing and manufacturing the equipment for R3 mill stand project

130 Designing, manufacturing and pre assembling the equipment for development project of hot rolling unit (phase 2)

131 Designing and manufacturing the equipment for F7 mill stand and modification and completion of F5, F6 mill stands

ساخت چرخ دنده جناغی و مجموعه گریپکس قفسه F1 جهت مجتمع فولاد مبارکه اصفهان (به بخش چرخ دنده در حوزه مثبت کالی فلزی رجوع شود.)

Active Tamkar Industrial Group’s members at this field

| Tamkar Company | SFC and MTS consortiums | Esfahan’s Akhgar Steel Company |
Steel Industry

Hot rolling area
Project title:
Designing and manufacturing of the equipment for Oxin Steel plant including; casting, initial and final assembly of more than 1400 tons equipment including the cooling bed and some parts of the roller tables for sheets and initial and final assembly of 15000 tons equipment including roller tables with all related parts
Employer: Danieli
Project’s date: 2006 to 2010
Installation location: Oxin Steel Plant
Oxin Steel Plant is located next to Khoozestan Steel Complex. The purpose of establishment of this plant is production of 1050000 tons steel sheets a year with the width of 1100 to 4500mm. Oxin Steel Company is the only wide steel sheet manufacturer in the Middle East and one of the 10 companies in the world who has this technology.
Machinery designing and manufacturing
Tunnel furnace and shuttle

Project title:
Manufacturing tunnel furnace and shuttle for development project of Sba area
Employer: Tamkar Co., Sepahan Safa Steel Co. and Mikasazeh Co. consortium Designer: Danieli Company
Project’s date: 2014
Installation location: Saba steelmaking and continuous rolling Plant

In steelmaking and continuous rolling process, the slabs that have just come out of the continuous casting line enter the tunnel furnace. The slab’s temperature is uniformed in the tunnel furnace and the slabs reach to the right temperature to enter the hot rolling stand mills. Shuttle is located between two sections of tunnel furnace like a drawbridge and brings the damaged slabs out of production line.
Mobarakeh Steel Company’s R3 mill stand

Project title:
Designing and manufacturing the equipment for R3 mill stand project

Employer: Iran International Engineering Company (IRITEC)

Project’s date: 2000 to 2002

Installation location: Esfahan’s Mobarakeh Steel Company

پروژه قفسه تورده R3 با هدف ارتقاء تکنولوژی از طریق دو طرفه کردن این قفسه، همچنین اصلاح کوپله‌های 1, 2, 3 و تغییر آنها به سیستم هیدرولیک انجام شد. با اجرای این پروژه ۴۰۰ هزار تن به تولید سالانه واحد تورده کمی را افزایش داد و بدون ترتیب امکان افزایش تولیدی واحد تورده تا ۳ میلیون تن در سال عملی گردید.
Mobarakeh Steel Company's F7 mill stand

Project title:
Designing and manufacturing the equipment for F7 mill stand and modification and completion of F5, F6 mill stands
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 1998 to 2000
Installation location: Esfahan’s Mobarakeh Steel Company

Hot rolling
Development of Mobarakeh Steel Company’s hot rolling unit

Project title:
Designing, manufacturing and pre assembling the equipment for development project of hot rolling unit (phase 2)

Employer: Iran International Engineering Company (IRITEC)

Project’s date: 2002
Installation location: Esfahan’s Mobarakeh Steel Company

devlopment project of hot rolling unit aims to increase the production capacity of Esfahan’s Mobarakeh Steel Company from 2.5ml tons to 3.1 ml tons a year and decrease the manufactured sheet’s thickness from 1.5 to 1.2mm
Manufacturing, installation and launching Chaharmahal and Bakhtiari Province Automotive Sheet Factory to produce galvanized automotive sheet under an EPC contract

Machinery designing and manufacturing projects

Manufacturing Mobarakeh Steel Company’ S cold rolling unit equipment

Assembling and installation of the mechanical and fluid equipment of tandem mill development-phase one in Mobarakeh Steel Company’ S cold rolling unit

installation and launching the mechanical and fluid equipment for entrance section of final phase of continuous tandem mill unit in Mobarakeh Steel Company’ S cold rolling unit

installation of the mechanical, fluid and electrical equipment of skin pass and acid washing project in Mobarakeh Steel Company’ S cold rolling unit

Active Tamkar Industrial Group’s members at this field

<table>
<thead>
<tr>
<th>Tamkar Company</th>
<th>MTS consortium</th>
<th>Pishro Sepahan alloy Steel Company</th>
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<td>Radiant tubes</td>
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Steel Industry

Cold rolling and other rolling processes
In cold rolling area
Manufacturing, installation and launching Chaharmahal and Bakhtiari Province Automotive Sheet Factory to produce galvanized automotive sheet under an EPC contract

Project’s main Features:
This project was started in 2007 and was completed in 2009
Employer: Iran International Engineering Company (IRITEC)
Partnership: Tamkar Co. and Mikasazeh Co.
Foreign Partner: CMI Belgium
Production capacity: 400000 tons a year
Main raw material: various cold rolled sheets
Products: various galvanized automotive sheets

Map legend
1 Coil opener, welding machine
2 Sheet pre cleaning, Sheet storage section, electrolytic degreasing, annealing furnace
3 Zinc pot, cooling pots
4 Washing machine, air dryer, skin pass mill, tension leveler, exit accumulator
5 Exit shear, tension reel
6 Roller repair workshop
7 Raw material and product warehouse
The scope of our activities
Doing engineering, construction and civil services, manufacturing and installation of the steel structure, Manufacturing, installation and launching the galvanized automotive sheet line and 12 overhead cranes

Project’s main components
This project includes 180000 square meters excavation, 3000 tons armature working, 48000 cubic meters concreting, 75000 tons structure making, 12 overhead cranes with the maximum Span length of 36 meters and capacity of 40 tons and more than 17000 tons machinery and equipment installations.
Manufacturing Mobarak Steel Company’s Cold Rolling Unit Equipment

Project title: Manufacturing the equipment for entry section and exit section, development project of Mobarak Steel Company’s cold rolling unit
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 2003 to 2005
Installation location: Esfahan’s Mobarak Steel Company

Manufactured equipment in this project:
Straddling Support / Delivery Coil / Walking Beam NO1,2
Entry Coil NO1,2 / Bridle NO1,2,3,4,5 / Safety Gage
Roller Tables / Flatness Roll
Machinery designing and manufacturing

Mobarakeh Steel Company continuous tandem mill

Project title:
Assembling and installation of the mechanical and fluid equipment of tandem mill development-phase one
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 2003
Installation location: Esfahan’s Mobarakeh Steel Company

Project title:
Installation and launching the mechanical and fluid equipment for entrance section of final phase of continuous tandem mill unit and manufacturing and installation of peripheral steel structure
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 2005 to 2008
Installation location: Esfahan’s Mobarakeh Steel Company

General information

The purpose of establishment of tandem mill line is decreasing the sheet thickness in the ambient temperature. The coil is opened by pay off reel and then is stretched by being passed through 5 mill stands of 4 rollers which are located vertically on top of each other. At the end of this process we have a sheet which is %50 to %85 that finally is winded to a coil by the tension reel machine. These coils are made of sheets which have the thickness of 0.3 to 3 mm.

Cold rolling
Electric washing unit of Mobarakeh Steel Company’s acid washing

Project title: manufacturing the bridles for new electric washing units and tin coated
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 00 20 to 2001
Installation location: Esfahan’s Mobarakeh Steel Com

Cold rolling
Mobarakeh Steel Company’s skin pass and acid washing

Project title:
installation of the mechanical, fluid and electrical equipment of skin pass and acid washing project
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 2006 to 2008
Installation location: Esfahan’s Mobarakeh Steel Company

Cold rolling
Radiant tubes

Project title: radiant tubes

In continuous galvanized sheet lines radiant tubes are located in annealing furnaces and change the molecular properties of the sheets by 700 to 800 centigrade degrees radiation. Generally these tubes are usable in furnaces with indirect flames.
154 Construction of the biggest jacket in the middle east for Reshadat oil field

156 Crossing Supports for Pipelines

158 Construction of the Stinger Structure of Aboozar 1200 tubing watercraft

160 reconstruction and construction of some parts of Aboozar oil field's platforms

Active Tamkar Industrial Group members at this field:

| Tamkar company | Petrokave Ariyan Company |
Oil, gas and petrochemical industries

The sea and offshore oil projects
Third Party Inspection: Bureau Veritas (BV)

Project’s date: 2008 to 2010
Reshadat or Rostam oil field is one of Iran’s oil fields in Persian Gulf which is situated 108 km south west of Lavan island. P4 is the central oil platform at this field and one of the biggest shallow water oil platforms in the world. This platform’s jacket weighs more than 3200 tons and with the height of 70 meters and the dimension of 42 in 43 meters is the biggest jacket in the Middle East and the platform’s deck with the weight of 9000 tons is set on it.
Crossing Supports for Pipelines

Project title: engineering, material providing, manufacturing and carrying 168 Crossing Supports (32 for phases 12, 48 for phases 15 and 16 and 108 crossing supports for phases 17 and 18 of South Pars)
Employer: Iranian Offshore Engineering and Construction Company IOEC
Third Party Inspection: Germanischer Lloyd (GL)
Project’s date: 2011 to 2012
Crossing supports are steel structures that aim the safety of the pipelines in the piping project. They are installed on the seabed where the new pipelines cross the old pipelines so the new pipelines can pass over the old pipelines with the right slope.
Stinger Structure of Aboozar 1200 tubing watercraft

Project title: engineering, material providing, manufacturing and carrying the Stinger Structure of Aboozar 1200 piping watercraft
Employer: Iranian Offshore Engineering and Construction Company IOEC
Third Party Inspection: Germanischer Lloyd (GL)
Project’s date: 2009 to 2011
A Stinger is a structure that is attached to tubing watercraft and immersed in the water and piping operation on the seabed is done by it. Constructed stinger in this project is equipped with ballast & de ballast system to adjust the right angle for piping and is made of two connected structures that have the length of 72 meters and weight of 450 tons in total.

Design and construction of this structure is a very complicated and sensitive job because of the various and strong forces that come on it from the sea and the craft side.
Oil platforms in Aboozar oil field

Project title: Cooperation in reconstruction and completion of Aboozar oil platforms including hook up operation, purchasing, construction and installation of the platforms, and providing the needed human force to complete the platforms, reconstruction of platform A12, dying operation, sandblasting and piping of the set of oil platforms AA-AB-AC and construction of the firefighting platform

Employer: Iranian Offshore Engineering and Construction Company IOEC

Project’s date: 2005 to 2011

Aboozar field is one of Iran’s oil fields in Persian Gulf that is situated 75 km west of Khark Island and is included of 10 drilling platforms, 3 production platforms and one residential platform on the sea. This complex has the highest oil extraction portion for Iran in Persian Gulf.
164 Manufacturing the equipment for development project of South Pars gas field-phases 9 and 10

164 Construction of off shore decks of 12th and 19th phases of south pars gas field

165 Manufacturing the equipment for off shore parts of South Pars gas field-phases 20 and 21

166 Construction and installation of mechanical and electrical structures for Iran Shipbuilding & Offshore Industries Complex Co. (ISOICO)

170 Material providing and construction of 5 drums for Mahshahr petrochemical site's tanks

172 Establishment of IOEC Concrete Weight Coating (CWC) Plant

173 Establishment of Daryafan Concrete Weight Coating (CWC) Plant

Active Tamkar Industrial Group members at this field:

| Tamkar Company | Petrokave Ariyan Company |
Oil, gas and petrochemical industries
Equipment for 20th and 21st phases of South Pars gas field

Project title:
Manufacturing the equipment for off shore parts of South Pars gas field-phases 20 and 21
Employer: Oil and Energy Industries Development Co. (OIEC)
Project’s date: 2014 to 2015
Weight volume of the project: manufacturing 1000 tons equipment
Third Party Inspection: Germanischer Lloyd (GL)
Equipment for development project of South Pars gas field-phases 9 and 10

Project title: Manufacturing the equipment for development project of South Pars gas field-phases 9 and 10
Employer: Oil and Energy Industries Development Co. (OIEC)
Project’s date: 2007 to 2008
Weight volume of the project: manufacturing 700 tons equipment

9th and 10th phases of development of this gas field are designed to produce 50 ml cubic meters natural gas, 80000 barrels Gas Condensates and 400 tons sulfur per a day and 1 ml tons Ethane and 1050000 tons Propane and Bhutan per a year.

Off shore decks of 12th and 19th phases of south pars gas field

Project title: engineering, manufacturing and carrying the nodes, plate and girders for off shore decks of 12th and 19th phases of south pars gas field
Employer: Iranian Off shore Engineering and Construction Company IOEC
Third Party Inspection: GL for phase 12 and SGS for phase 19
Project’s date: 2011 to 2012
Weight volume of the project: 796 tons

South Pars gas field is the biggest gas source in the world which is situated on Iran-Qatar boarder in Persian Gulf. Gas storage in this part of field is 14 Trillion Cubic meters gas along with 18 billion barrels Gas Condensates. Development project of this field is running in 24 phases for extraction of 790 ml cubic meters gas.
Persian Gulf ship building

Project title:
Construction and installation of mechanical and electrical structures for Iran Ship building & Offshore Industries Complex Co. (ISOICO)
Employer: Iran Ship building & Offshore Industries Complex Co. (ISOICO)
Project’s date: 1997 to 2004

Iran Shipbuilding & Offshore Industries Complex was established 36 km west of Bandar Abas in 1974. This complex is one of the biggest factories in ship building industry and is active in building various kinds of ocean liners, watercrafts, the sea structures, oil and gas platforms and repairing various watercrafts.
Dolphin floating dock is 42 in 240 meters and has the lifting power of 28000 tons, appropriate for watercrafts with maximum loading capacity of 80000 tons.
Esfahan Petrochemical Drums

Project title:
Material providing and construction of 5 drums for Mahshahr petrochemical site’s tanks
Employer: Esfahan Petrochemical Company
Project’s date: 2012

Technical features:
Design Press: 3.5 bar
Design Temp: 60oC
Radiography: 100%
Volume: 30m³
Hydro Test Press: 3.5 bar
Daryafan Concrete Weight Coating (CWC) Plant

Project title: designing and manufacturing the equipment for Daryafan Concrete Weight Coating (CWC) Plant
Employer: Darya Fan Qeshm Industries Co. (SADAF)
Project’s date: 2003 for 45 days
IOEC Concrete Weight Coating (CWC) Plant

Project title: partnership in designing, establishment and launching Concrete Weight Coating (CWC) Plant
Employer: Iranian Off shore Engineering and Construction Company IOEC
Project’s date: 2000 to 2001
Concrete Weight Coating (CWC) Plant coats the gas and oil pipes with anticorrosive materials before their installation on the seabed. They remove the corrosion on pipes surface at the first step. Primer coating and enamel coating are the next steps. Then the circular anodes are installed on the pipes for cathodic protection. Finally the pipes are concrete coated and the coated pipes are shipped to the piping location as final products.
Active Tamkar Industrial Group members at this field:

- Tamkar Gas Equipment Company
- Green Alappad Company
- Arian World Energy Company
- Barckly Company
Oil, gas and petrochemical industries

Designing and constructing CNG filling stations
Designing and construction of various CNG filling stations

Name of the Company: Tamkar Gas Equipment Company
Project’s date: 2009 to 2011
Factory’s location: Moorchehkhort Industrial area in Esfahan, Baharestan Industrial area in Tehran
Activity: designing, construction, launching and after sales services of CNG filling stations
Products: Home and office refueling devices, medium CNG filling stations that can be installed in the heights, big CNG filling stations including gas compressor, gas dryer, cooler, CNG storage tanks and distributers
CNG filling stations all over Iran 200 Construction of more than
Designing and constructing CNG filling stations

1. Gas compressor
2. CNG storage tanks
3. Gas distributor
4. Gas dryer
5. Supervisory control and data acquisition center for the station (SCADA)
Active Tamkar Industrial Group’s members at this field

- Sepahan
  - Pishro Steel Company
- Isfahan
  - Akhgar Steel Company
Oil, gas and petrochemical industries

Cracking tubes
Cracking tube manufacturing

Name of the company: Sepahan Pishro Steel Company and Isfahan Akhgar Steel Company
Establishment date: 2009
Location: Oshtorjan Industrial area in Esfahan
Activity: production of reformer and cracking tubes with the diameter of 3 to 20 inches with centrifuge method
Products:
- Cracking tubes made of high alloy Nickle based steel with the diameter of 3 to 20 inches
- Y pieces for cracking tubes made of high alloy steel
- Locking bars for cracking tubes made of super alloy Cr-50%Ni50% which weigh from 50 to 1200 kg

Designing and constructing CNG filling stations
Cracking tube manufacturing

1. Molten material discharge in the ladle
2. Casting with centrifuge method
3. Bringing the tubes out of the cast
4. Plasma welding
190 Manufacturing oil flow swept bends

190 Manufacturing the industrial ball valves

56 Manufacturing and repairing displacement blowers (go to steel industry, iron making area, direct reduction unit)

Active Tamkar Industrial Group’s members at this field

| Tamkar Company | Isfahan Akhgar Steel Company |
Oil, gas and petrochemical industries

Casting and production of machine segments
Product’s main features:

Manufacturing the industrial ball valves
Dimension: 6 to 56 inches diameter
Made of: stainless steel and carbon steel
Product’s main features:

Title:
Oil flow swept bends
Made of: Pressure and Corrosion resistant steel
Weight volume: type1:500kg and type2:640kg
Description: this product is produced in two types: 3000 and 5000 and has testing pressure tolerance of 10000 Psi and operating pressure tolerance of 5000 Psi.
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Ghizghalehsi diversion-regulatory dam (phase 1)

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Siyazakh storage dam

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Darehdozdan and Darehdayi diversion dams

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Talvar dam

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Ghighaj storage dam

Designing, providing, constructing, carrying, installation and launching the stream control valves and connecting Chahnimeh (nombur3) tank to Chahnimeh (nombur4)

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Khodaafarin dam and controlling the left strand of this dam

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for deep discharge system of Gatvand Olya dam and power plant and repairing the equipment of this regulatory-diversion dam

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Sivand dam

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Reisali Delvari dam

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for sediment washing canal and Stilling basin of Paye Pole Karkheh dam’s power plant

Active Tamkar Industrial Group’s members at this field

Faradid Mihan Engineering Company
Water and Energy Industry

Hydro mechanical equipment for dams
Ghizghalehsi dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Ghizghalehsi diversion-regulatory dam (phase 1)
Original employer: Azarbajjan sharghi Regional Water Company
Employer: Sabir Dam and Water Works Construction Company, Taemin Rah Company
Project’s date: 2010

Ghizghalehsi diversion-regulatory dam is 10 km far from Khodafarin dam. This is an earth dam with a clay core. The length of dam crest in this dam is 834 meters, it’s volume is 62ml cubic meters and it is 37 meters high from the lowest point of foundation. The establishment of this dam aims the regulation of tail water of Khodafarin dam and production of 135 GW/h electricity annually.
Siyazakh Dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for siyazakh storage dam

Original employer: Kordestan Water Treatment Company
Employer: Jihad Tosee Manabe Ab Co.
Project’s date: 2010

Siyazakh dam is situated 7 km south west of one of Kordestan province’s towns named Divandareh. This dam is a rockfill-earth dam. The length of dam crest in this dam is 285 meters, the dam tank’s volume is 230ml cubic meters and this dam is 84 meters high from the lowest point of foundation. The establishment of this dam aims providing the needed agricultural and drinking water of the area.
Darehdozdan and Darehdayi Dams

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Darehdozdan and Darehdayi diversion dams

Original employer: Teran Regional Water Company
Employer: Peymab Co.

Project’s date: 2010 to 2013

Conveying the water from the Dez river to the Ghalamrood river is one of the biggest water supplying projects in the Middle East. This project is concluded of Cheshmehsardab diversion dam, Cheshmehsardab to Darelekoo tunnel, Darelekoo to Daredozdan tunnel, Darehdozdan diversion dam, Daredozdan to Darehdayi tunnel and Darehdayi diversion dam.
Talvar Dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Talvar dam

Employer: Zanjan Regional Water Company
Project’s date: 2008

Talvar dam is situated among Zanjan, Hamedan and Kordestan provinces.
This dam is an earth dam with a clay core. The length of dam crest in this dam is 529 meters, the width of dam crest is 12 meters, the dam tank’s volume is 500ml cubic meters and this dam is 88 meters high from the lowest point of foundation. The establishment of this dam aims providing the needed agricultural water for Zanjan province for the amount of 24000 hectares and Kordestan province for the amount of 8000 hectares and drinking water for Hamedan province to the amount of 89 ml cubic meters.
Ghighaj dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Ghighaj storage dam

Original Employer: Azarbayejan Regional Water Company
Employer: Gilban Construction CO.
Project’s date: 2007 to 2013

Ghighaj storage dam is situated 15 km far from Poldasht which is a town in Azarbajen Ghrbi province.
This is an earth dam with clay core. The length of dam crest in this dam is 1995 meters, the dam tank’s volume is 10ml cubic meters and this dam is 20 meters high from the lowest point of foundation.
Chahnimeh tank

Project title:
Designing, providing, constructing, carrying, installation and launching the stream control valves and connecting Chahnimeh (nombur3) tank to Chahnimeh (nombur4)
Original Employer: Water and Soil Resources Development Company
Employer: Panior Co.
Project's date: 2007 to 2011

Chahnimeh (nombur4) dam is located in zohak town which is located in Systan Baloochestan Province. The length of dam crest in this dam is 170 meters, the width of dam crest is 6 meters, the dam tank’s volume is 800ml cubic meters and this dam is 16 meters high from the lowest point of foundation. 4th Chahnimeh has the largest volume amongst Chahnimeh 1 to 4
Khodaafarin dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Khodaafarin dam and controlling the left strand of this dam
Employer: Azarbayejan Regional Water Company
Project’s date: 2006

Khodaafarin storage dam is constructed by two countries of Iran and Azarbayjan on the Aras River on the boarder of these two countries. This dam is an earth dam with a clay core. The length of dam crest in this dam is 390 meters, the dam’s volume capacity is 1.6 billion cubic meters and this dam is 64 meters high from the lowest point of foundation. The establishment of this dam is water storage and controlling Aras river streams for irrigation of agricultural lands and production of 275 GW/h electricity annually.
Khodaafarin dam

1. The workshop for manufacturing the pipes of bypass canal on Khodaafarin dam’s left strand with the diameter of 9 meters
2. Trash rack of entrance canal of Khodaafarin’s left strand
3. Installation of servicing and emergency gates on the left canal of Khodaafarin dam
4. Construction of junction for Khodaafarin’s left strand canal
5. Installation of steel cover of Khodaafarin’s left strand canal
6. Installation of lifting bar of the dam’s diversion gate
7. Construction and installation of the head gate of the entrance of bypass canal on Khodaafarin dam’s left strand
8. Hydraulic jack and link rod system of the head gate of the entrance of bypass canal on Khodaafarin dam’s left strand
Gatvand Olya Dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for deep discharge system of Gatvand Olya dam and power plant and repairing the equipment of this regulatory-d diversion dam
Employer: Water and Soil Resources Development Company
Partnership: Faradid Mihan Engineering Company, Boland Payeh Company
Project's date: 2007

Gatvand Olya dam is situated 30 km far from Shooshtar which is one of Khoozestan’s towns on the Karoon River. This is a rockfill dam with a clay core. The length of dam crest in this dam is 760 meters, the dam tank’s volume is 5,082 million cubic meters and this dam is 180 meters high from the lowest point of foundation. This is the highest earth dam in Iran.
Ghalechay Ajabshir Dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Ghalechay Ajabshir dam
Employer: Azarbayejan Sharghi Regional Water Company
Project’s date: 2006

Ghalechay Ajabshir dam is situated 25 km far from Ajabshir which is one of Azarbayejan Sharghi province’s towns. This is an earth dam with a clay core. The length of dam crest in this dam is 336 meters and the width of it is 10 meters, the dam aims the storage of 40ml cubic meters water and is 85 meters high from the lowest point of foundation. It also aims the irrigation of 11900 hectares agricultural lands of the province.

Hydro mechanical equipment for dams
Ilam Dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Ilam dam weir
Employer: Kermanshah Regional Water Company
Project’s date: 2000 to 2003

Ilam dam is situated 22km far from Ilam province. This dam is a rockfill dam. The length of dam crest in this dam is 162 meters and this dam is 65 meters high from the lowest point of foundation. The establishment of this dam aims providing 28 ml cubic meters drinking water annually for Ilam province and irrigation of 930 hectares agricultural lands of Amirabad and 5600 hectares lands of Mehran.
Zaringol Dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Zaringol dam
Employer: Mazandaran Water Treatment Company
Project’s date: 2005 to 2008

Zaringol diversion dam is situated 40 km far from Gorgan which is one of towns of Golestan province. This is a weir dam with no gates. The length of the weir is 30 meters and it is 6 meters high from the lowest point of foundation and has the water impounding of 15 cubic meters per second. The establishment of Zaringol diversion dam is collection and regulation of surplus of the Zaringol- and Kaboodval Rivers water streams.
Sivand Dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Sivand dam
Employer: Mazandaran Regional Water Company
Project’s date: 2005 to 2008

Sivand storage dam is situated in Tangbolaghi about 80 km northeast of Shiraz in Fars province. This is an earth dam with clay core. The length of dam crest in this dam is 600 meters, the capacity of this dam is 255m³ cubic meters and it is 57 meters high from the lowest point of foundation. The establishment of this dam aims the irrigation of 11,000 hectares agricultural lands of the province and also controlling the floodwaters of the Sivand River drainage basins.
Reisali Delvari Dam

Project title:
Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for Reisali Delvari dam
Employer: Mazandaran Regional Water Company
Project’s date: 2005

This is a concrete two arched dam. The length of dam crest in this dam is 240 meters, the width of dam crest is 5 meters, the dam tank’s volume is 685 m³ cubic meters and this dam is 102 meters high from the lowest point of the foundation. The establishment of this dam aims the irrigation of 24000 hectares agricultural lands of the province and production of 96 GW/h electricity annually.
Regulatory- Diversion Dam of Paye Pole Karkheh

Designing, providing, constructing, carrying, installation and launching the hydro mechanical, electrical and control equipment for sediment washing canal and Stilling basin of Paye Pole Karkheh dam’s power plant

Employer: Khoozestan Regional Water and Electricity Company

Project’s date: 2009 to 2012

Regulatory- diversion dam of Paye Pole Karkheh is constructed 10 km far from Andimeshk city on the Karkheh River. The establishment of this dam aims the diversion of the Karkheh River to Paye Pole canal and also the regulation of the output water of Karkheh storage dam.
226 Manufacturing & installation of mechanical and electrical equipment for development plan of North of Isfahan Wastewater Treatment Plant with the capacity of 800000 people

228 Manufacturing and repairing the screw pumps for Wastewater Treatment Plants

Active Tamkar Industrial Group’s members at this field

Tamkar Company
Water and Energy Industry

Wastewater treatment plants
North of Isfahan Wastewater Treatment Plant

Project title:
Manufacturing and installation of mechanical and electrical equipment for development plan of North of Isfahan Wastewater Treatment Plant with the capacity of 800000 people.
Employer: Isfahan Regional water and Wastewater Company
Partnership: Iran Zolal Company
Project’s date: 1996 to 2002

After running the development project of North of Isfahan Wastewater Treatment Plant, the capacity of this plant grew from 400000 people to 1200000 people. The method of wastewater treatment which is used in this plant is the biologic method of Activated Sludge (phase A and phase B).
Manufacturing and repairing the screw pumps for Wastewater Treatment Plants

Project title: Manufacturing and installation of the screw pumps for North of Isfahan Wastewater Treatment Plant
Employer: Isfahan Regional water and Wastewater Company
Project’s date: 1996

Project title: Manufacturing and installation of the screw pumps for Hamedan Wastewater Treatment Plant
Employer: Hamedan Regional water and Wastewater Company
Project’s date: 2010

Project title: Manufacturing and installation of the screw pumps for the North Wastewater Treatment Plant
Employer: Isfahan Regional water and Wastewater Company
Project’s date: 2015
232 Manufacturing the wicket gates for Seymareh Dam, Karoon4 Dam, Gatvand Dam, Masjed Soleyman Dam

Active Tamkar Industrial Group’s members at this field

| Tamkar Company | Isfahan Akhgar Steel Company |
Water and Energy Industry

Water Turbine’s Equipment
Product’s main features:

Title: wicket gate
Made of: Corrosion resistant stainless steel
Installation locations: Seymareh Dam, Karoon 4 Dam, Gatvand Dam, Masjed Soleyman Dam
Third party supervision: Alstom Company-Viot Siemens Company
Active Tamkar Industrial Group’s members at this field:

| Tamkar Company | Isfahan Akhgar Steel Company |
Water and Energy Industry

Wind Turbine’s Equipment
Wind Turbine’s Equipment
wind turbines

1. Yaw Top
2. Housing
3. Main Shaft
4. Hub
5. Yaw Finger
Active Tamkar Industrial Group’s members at this field:

Aryan Sang
Company
Non Ferrous Mineral Industry

Decorative Stone Processing Machines
Manufacturing the decorative stone processing machines
Company: Tamkar Sang Arian Company
Date of establishment: 2005
Location: Doulat Abad Industrial area in Isfahan
Activity:
Manufacturing, launching and after sale services of the decorative stone processing machines (slab production line, licensed production of Italian Company: Berton)
Products: -80 blade panel saw, polishing machine, Frez machin
The installation locations of machinery manufactured by Tamkar Sang Aryan Company
Decorative Stone Processing Machines
Active Tamkar Industrial Group’s members at this field

| Tamkar Company | Pars Fuel Filler Manufacturing Company |

Manufacturing, launching and after sale services of the brick and clay production factories.
Non Ferrous Mineral Industry

Brick and Clay Production Factories
Manufacturing the machinery for clay and brick production

Company: Pars Fuel Filler Manufacturing Company and Tamkar Company
Date of establishment: 1987
Location: Doulat Abad Industrial area in Isfahan
Activity:
Manufacturing, launching and after sale services of the brick and clay production factories
Products: silo, simple mixer, Vals machine, dispersion mixer, vacuum mixer, press machine, cutting machine, transfer machine, finger machine, pallet accumulator, tunnel furnace, wet and dry elevators, fuel filler
Tamkar Industrial Group
Manufacturing more than 600 brick and clay production factories in the Middle East
Manufacturing more than 600 brick and clay production factories in the Middle East
1. preparation of the mud (simple mixer, Vals machine)
2. formation of the mud (vacuum mixer, press machine)
3. cutting the raw bricks (cutting machine, elevator)
4. drying the raw bricks (dryer)
Active Tamkar Industrial Group’s members at this field:

- Tamkar Company
Non Ferrous Mineral Industry

Cement factories equipment
Kordestan Cement Factory

Project title:
Manufacturing, providing and delivery of equipment for development plan of Kordestan Cement Factory
Employer: Yasna Pakavdish Industries Company
Project’s date: 2014

Kordestan Cement Factory is situated 5 km far from Bijar in Kordestan, Iran. The factory established to produce 3200 tons grey cement a day. This amount changed to 4200 tons grey and compound cement after the factory’s development plan.
Mand Dashti Cement

Project title:
Manufacturing, providing and delivery of equipment of cement mill for Mand Dashti cement factory
Employer: Yasna Pakavdish Industries Company
Project’s date: 2013

Mand Dashti Cement Factory is situated 2 km far from Khormooj in Booshehr, Iran. The factory is established to produce 3300 tons grey cement a day.
Zabol cement

Project title:
Manufacturing and providing the crusher’s body, raw material mill department and cement mill department
Employer: Zabol Cement Company

Project’s date: 2007 to 2008
Zabol Cement Factory is situated 65 km far from Zabol in Sistan Baloochestan, Iran. The factory is established to produce 3400 tons grey cement a day, 1 ml tons cement a year, in total.
Designing, casting and gear grinding of various gearwheels with the diameter of up to 10 meters.

Active Tamkar Industrial Group’s members at this field:

| Tamkar Company | Isfahan Akhgar Steel Compan |
Non Ferrous Mineral Industry

Gearwheels with the diameter of up to 10 meters
<table>
<thead>
<tr>
<th>No.</th>
<th>Gear Company</th>
<th>Diameter</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gear of Lika company</td>
<td>Diameter 5500 mm</td>
<td>Height 300 mm</td>
<td>weight 8000 kg</td>
</tr>
<tr>
<td>2</td>
<td>Gear of Doroud cement company</td>
<td>Diameter 4000 mm</td>
<td>Height 450 mm</td>
<td>weight 25000 kg</td>
</tr>
<tr>
<td>3</td>
<td>Gear of Isfahan cement company</td>
<td>Diameter 6000 mm</td>
<td>Height 450 mm</td>
<td>weight 19000 kg</td>
</tr>
<tr>
<td>4</td>
<td>Gear of Lika company</td>
<td>Diameter 4650 mm</td>
<td>Height 280 mm</td>
<td>weight 5876 kg</td>
</tr>
<tr>
<td>5</td>
<td>Gear of Sepahan cement company</td>
<td>Diameter 7200 mm</td>
<td>Height 900 mm</td>
<td>weight 50000 kg</td>
</tr>
<tr>
<td>6</td>
<td>Gear of F1 فولاد مبارکه</td>
<td>Diameter 4398 mm</td>
<td>Height 1570 mm</td>
<td>weight 54440 kg</td>
</tr>
</tbody>
</table>
Gearwheels with the diameter of up to 10 meters
7 Mobarake Steel Company’s shaft, pinion and gearwheel
8 Mess Sarcheshmeh Company’s gearwheel
9 Mobarake Steel Company’s rolling gearwheel
10 Isfahan Steel Company’s agglomeration gearwheel
11 Iraq-Najafe Ashraf Cement Company’s gearwheel
12 Yazd Steel Company’s gearwheel
Gearwheels with the diameter of up to 10 meters
Active Tamkar Industrial Group’s members at this field:

| Tamkar Company | Isfahan Akhgar Steel Compan |
Civil Industry

Special Steel Structures
The structure of Isfahan International Conference Center

Project title: construction and installation of the steel structure of the main hall and canopy and connection bridges of Isfahan International Conference Center
Employer: Isfahan Municipality Organization
Project’s date: 2013 to 2014
Designer of the Structure: Atkins (England)
The structure features:
The biggest geometric shaped structure in Iran regarding the dimension (the height of 60 meters from the foundation and internal diameter of 90 meters and the arcs which have the protrusion of 9 meters and very strong bolt and nut connections (class10.9)). The structure of Isfahan International Conference Center won the title of the best structure in Iran’s Municipalities Conference and also was chosen as the best project in non-residential section in the 4th Steel and Structure International Conference.
Special Steel Structures
Special Steel Structures
Shahid Kharazi two mega module structure of direct reduction

Shahid Kharazi direct reduction project
Project’s title: Manufacturing Shahid Kharazi two mega module structure for direct reduction unit of Esfahan’s Mobarakeh Steel Company
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 2010 to 2012
Installation location: Esfahan’s Mobarakeh Steel Company
Structure’s height: 82 meters
The structure features:
Height: 82 meters, length: 32, width: 25, very strong bolt and nut connections (class 10.9), the length of the tallest component which is used in this structure: 23 meters, the highest thickness of steel sheet: 80 mm, the amount of drilling: 700000 holes
The structure of Chaharmahal and Bakhtiari Automotive Sheet Factory

Project’s title: Construction of the structure of Chaharmahal and Bakhtiari Automotive Sheet Factory
Employer: Iran International Engineering Company (IRITEC)
Project’s date: 2008 to 2009

The structure features:
Maximum height from the foundation: 62 meters
Maximum span length: 40 meters
Very strong bolt and nut connections (class 10.9)
Special Steel Structures
Special Steel Structures
Active Tamkar Industrial Group’s members at this field

Spadan Pars
Zob Company
Automotive Industry

Cylinder heads for cars
Manufacturing the Cylinder heads for cars

Company: Spadan Pars Zob Company
Date of establishment: 2009
Location: Mahmoodabad Industrial area in Esfahan
Activity: casting and manufacturing of cylinder heads for cars
Products: Cylinder heads for cars
Production capacity: 500000 cylinders a year
Casting method: low pressure die-cast of aluminum
Tamkar Industrial Group
Cylinder heads for cars
Cylinder heads for cars
Contact Details of Tamkar Industrial Group Companies

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