



Asgon Felez Sepahan Co.

Design, manufacture and installation:

Types of multi-floor and industrial structures

Types of semi-heavy and heavy steel structures industries (oil, gas, petrochemical, steel & cement) equipment

Type of power transmission pylons and high pressure posts

Types of ceiling and gate cranes

Manufacture & installation of types of reserve & pressurized containers.

Factory address: Esfahan, Mourche khort Industrial Town, Sheikh

Bahaee 1St., No. 117, Post code: 8333115715

Factory Tel: +98-3145643170-1

Fax: +98-3145643172

Email: afsco80@gmail.com

Web: www.asgonfelez.ir



Experience, Commitment, Capability



Asgon Felez Co. Started its activity in the manufacture of types of heavy and light, steel structures and industrial cranes in 1984 in Esfahan city an a 5000-m2 site in 2000 – m2 production halls, affiliated to Esfahan Industries Department.

Regarding the domestic development of an ever – increasing demand for this type of production, the company developed its production in the fields of steel, oil, gas, petrochemistry, cement and construction in 2001, changed its name to Asgon Felez Sepahan Co, had its new Reg. No. 17801 and established its 2nd factory in Mourchekhort Industrial Town on a 35000-m2 site employing its significant facilities to start a new era in its production development.





Over 30 Years of Experience

















- Manufacture and installation of types of steel structures and industrial equipment for oil, gas, petrochemical, steel cement ... industries.
- Manufacture, installation and performance of light and high steel (Z-bar) structures, screwed and bolted steel skeletons, residential/ industrial complexes structures, etc.
- Manufacture and installation of pedestrian light bridges and steel heavy bridges.
- Manufacture and design of power station industries, gas and air ducts, economizers and power station equipment.
- Manufacture and installation of types of network telescopic pylons for power transmission and communication lines.
- ➤ Manufacture and start up of light / heavy transportation means, ceiling / gate / arm/ column cranes and types of conveyers.
- Manufacture and installation of types of reserve & pressurized containers

Asgon Felez Co. capabilities



















- Over 30 years of experience
- Automatic lines equipment & machinery
- > Skillful man power in design, production and installation
- Financially able to provide any bank guarantee
- Annual production: 20,000 tons



production and executive sites



Item	Description	Dim
1	Factory total area	35000m ²
2	Indoor halls equipped with heavy cranes	8000m ²
3	Open areas equipped with gate cranes	7000m ²
4	Indoor / outdoor sites for painting and sandblasting operations	10000m ²
5	Warehouses and materials depot	1500m ²
6	Factory technical, engineering and office premises	1000m ²
7	Resident supervisor's office (equipped with cooling heating, computer, Internet, printer systems and office furniture, tools, instruments	15m²





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Staff and production power



Staff and production power			
-Managing director and board of directors president: (mechanical engineering, 33 years of experience) - Member to board of directors (mechanics Master, 15 years of experience) - Member to board of directors (civil engineering, 31 years of experience)	Board of directors members scientific power		
Quality Control	Master and Bachelor, 7 Persons		
Technical & engineering office	Master and Bachelor, 6 Persons		
Project control	Master & Bachelor, 4 Persons		
Production manager supervisors	Master & Bachelor, 5 Persons		
Financial & accounting unit	Master & Bachelor, 5 Persons		
Commerce	Master & Bachelor, 3 Persons		
Warehouses	Master & Bachelor, 3 Persons		
Employment	Bachelor, 2 Persons		
Office affairs and supplies	Bachelor, 5 Persons		
Production personnel	85 Persons		
Capable & committed contractors	As required		

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Equipment & Machinery			
Item	Description	Sets	
1	Rectifying welder, co2, trans – and argon welding m/c	50	
2	3-m guillotine, cutting power: 25 mm	1	
3	6-m guillotine, cutting power: 30 mm	1	
4	6-m guillotine, cutting power: 25 mm	1	
5	6-m BARAK press m/c, 250 tons	1	
6	6-m BARAK press m/c, 750 tons	1	
7	CNC Cutting m/c	2	
8	BEAM H. making m/c	1	
9	Rail powder m/c	4	
10	Gate powder m/c	1	
11	BEAM H. straightening m/c	1	
12	15.5-ton & 25-ton ceiling crane	10	
13	10-8 15-ton gate crane	3	
14	3-m turning m/c	1	
15	2-m turning m/c	1	
16	1-m turning disk m/c	1	
17	Morse 6 milling m/c	1	
18	Radial 50 drilling m/c	4	
19	20-mm roll – to – sheet line	1	
20	6- mm roll – to – sheet line	1	
21	Straightening roller	3	
22	Strap sawing m/c	1	
23	Crank sawing m/c	1	
24	Threading m/c	1	
25	5- Purpose punching (press) m/c	7	
26	150 – ton press m/c	3	
27	200 - ton press m/c	1	
28	5-& 3-ton lift truck	2	
29	Surveying camera (Neavo and Theodolite)	2	
30	Company Vehicles (crane truck, light track, cars)	6	

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Design, manufacture and installation of Types of multi-floor and industrial structures





Manufacture and installation of types of reserve & pressurized containers







Manufacture and start – up of light / heavy transportation means, ceiling / gate / arm/



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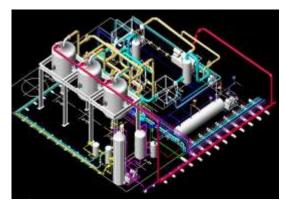
Manufacture and installation of types of network telescopic pylons for power transmission and communication lines

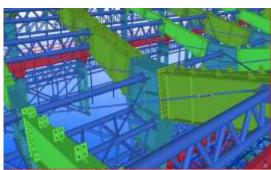


Steel structures production software and standards

Item	Software	Application		
1	M.S TOWER V	STRUCTURAL ANALYSIS AND DESIGN		
2	ANSYS	SOLID & FLUID ANALYSIS BY FEM		
3	SAP 2015	STRUCTURAL ANALYSIS AND DESIGN		
4	SOLID WORKS	3D SOLID MODELING		
5	AUTO CAD 2016	3D MODELING & DRAFTING		
6	CATIA	3D MODELING & DRAFTING		
7	BOCAD	3D STRUCTURAL DETAILING AND DRAFTING		
8	MICROSTATION	3D MODELING & DRAFTING		
9	MECHANICAL DESKTOP	3D PARTS DETAILING AND DRAFTING		
10	P.D.M.S	PLANT DESIGN MANAGEMENT SYSTEM		
11	PRIMAVERA 3	PLANNING & PROJECT CONTROL		
12	M.S PROJECT	PLANNING & PROJECT CONTROL		
13	PLUS 2D	SHEET CUTTING		
14	TEKLA STRUCTURE	3D SOLID MODELING & SHOP DRAWING		

- Design, materials and steel structures non-destructive tests.
- Structure design standard AISC
- Materials production with standards ASTM, AISC and DIN
- Manufacture and welding standards and N.D.T different methods:
 - 1. Visual Test
 - 2. Dimensional Test
 - 3. Penetrative Liquid Test
 - 4. Magnetic Particle Test
 - 5. Ultrasound Test
 - 6. Radioactive Test based on which standard S.B.R NDT STD Will apply.





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Experience commitment capability Standards of design, manufacture, assembling and installation of cranes.



Item	Standard No.	Description		
1	BS 4211	Manufacture of load carrying beams, rails, longitudinal motion rails parallelism, situation of access paths and ladders		
	D: 45045 PIN 45070			
2	Din 15015, DIN 15079	Wheels materials & sizes		
3	ISO 8686 1-5, ASME B30	Design and manufacture of other mechanical equipment		
4	AISE, AISC, ISO 8306, CMAA 70	Crane steel structure design		
5	ISO, 1940-2372-10816-1680, IEC 37-72-79	Electrical equipment standard		
6	AWS D14.1 & D1.1 Steel structures welding			
7	ISRI4379 Safety & technical inspection national directives fo			
8	BS 6570, ISO 4308, 1ISO 4309	Lowing cable inspection		
9	ISO 4779, DIN 15401	Eye inspection		
10	ASME B30, BS 466FEM	Inspection during installation		
11	IPS - M - GN - 350 (2)	Other standards		

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Asgon Felez Co. Design and manufacture standards of power transmission pylons containers standards



Power transmission pylons loading standards

- **BS 8100 and Factor Correction**
- ► EIA/TIA-222-F
- > AS3995

Power transmission pylons basic & detailed design standards

- > ASCE 10-97
- **BS 8100,449,5950**
- NBN B 51001
- **AS 3995**
- Class 2a-2B
- **ASCE Manuals:52,72,74**

Manufacture and galvanization standards of power transmission pylons parts

- **DIN267-PART26,7990**
- DIN EN 10025, 10029, 10048, 10051, 10056, 24034
- > ISO 898
- > JIS B 1251, G 3101, G 3192
- **IEC 60652**
- **BS 729, 4848**
- ASTM A 123 , A143 , A153 , A239 , A394
- ➤ ANSI B 1.1 Class 2A 2B

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pressurized containers standards

Item	Standard	Description
1	ASTM, AISC, DIN	Materials Production Standard
2	AWS	Manufacture and welding standards & NDT different methods
3	ASME, SEC, VIII	Pressurized containers standard (US Engineers Association)
4	B.S. 5500 & 2654	Boilers inspection standard
5	API 661 & TEMA	Inspection approval standards for air heaters coolers welding and design
6	API 650	single wall containers standard USs oil Institute
7	IPS	Iran Petroleum Standard















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Production Processes

All projects including residential, industrial and commercial steel structures, types of steel bridges and industrial equipment are performed based on control quality directives and required tests (QCTM). All the phases including preparation manufacture, assembling, boring, cutting, cleaning and painting are thus included.

QCTM directive includes

- 1. Project general 2. Field of operation 3. Reference of documents 4. Raw materials
- 5. Steel structure welding process qualitative requirements 6. Bolts, Screws, Washers
- 7. Cleaning and painting 8. Protection for transportation
- 9. Assembling and installation each having its own directives and standards.

Each project is prepared based on a logical and detailed program (QCTM). And work time scheduling and efficiency are so adjusted with Primavera software that work efficiency is provided in the form of progress diagrams with suitable scales showing at any time the in- process work percentage.

At any time the system deems appropriate, the work real progress value will thus be accessible. The project performance progress program will be planned in the form of a general program presented by the employers supervisory system, and along with the machinery and human power list in different fields of specialties, they will be offered to the employers.

Project planning and control unit

Each project is prepared based on a logical and detailed program and its time scheduling is adjusted using Primavera 6 & M.s project software. Work efficiency is then prepared in the form of progress diagrams using Excel software with suitable scales, and the percentage of the performed work will be displayed at any time. Beside the projects programming and agenda issuance for notification to the production section, this unit will also conduct surveys for project control. Upon study of deviations and delays, compensatory programs are provided, and regarding the conducted analytical reports, corrective actions are taken at the specified time for project delivery.





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Gate & ceiling cranes

- Design & manufacture of cranes complying with relevant standard and observing all safety and environmental regulations
- Manufacture of bridges and mud fenders using (European type) Box Girder different sheets based on relevant standards and steel working work group along with engineering drawings.
- > Shafts, bearings, ball bearings and wheels are selected using special steels.
- ➤ All the systems motions are equipped with speed adjustment by inverters made by the world credible companies.
- ➤ The lifting system is selected based on customers order.
- After being installed and started up, any system will undergo dynamic / static tests.
- This company is committed to after-sales services and spare parts support & supply.





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Quality Control Unit

The QC unit includes the following sections:

- 1. Materials control based on lamination analysis, etc
- 3. Weld control
- 5. NDT and DT

- 2. Dimensional control
- 4. UT
- 6. Sandblast and paint

Steel structures quality control starts based on Awsd.1.1, including the steps of cutting control, boring control, dimensional control, Takweld and welding as the test starts with the Position 3f-4f and final welding. After welding, nondestructive tests shall be performed in which UT has been selected for the standard steps Awsd 1.1. After UT steps completion, the parts are cleaned and repaired so that any defects are removed.

Sandblasting is afterwards performed at the $sa2\frac{1}{2}$ level. Painting and sandblasting are performed based on ASTMD 80, ASTMD 562 ASTMD 3359, ASTMD 1640 and ASTMD 4414, materials control is performed based on AWSD1.1. including the lamination tests and also includes Steel materials analysis, specified based on the spectrum.

Dimensional control is performed based on standard AWSD 1.1 including weight and length. Weld control is performed based on AWSD 1.1. Welders are tested based on position 3f, 4f. UT is performed based on standard A.S.M.E sec.

5. Sec 8 Part 2 inspection AWSD 1.1.

Sandblasting and painting are performed based on standard ASTM-D3359-ASTM1640. Steps of sandblast, middle paint and final paint are performed with ASTM D4414, epoxy, ethyl silicate and silicon aluminum paints or zinc chromate paint (its type is selected based on the employer discretion).





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Manufacture and installation – of types of steel structures and industrial equipment for oil, gas, petrochemical









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Manufacture and installation – of types of steel structures







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Surface preparation (Sandblast)

Regarding the company activity in the manufacture of steel structures from the very beginning of design and manufacture up to the end of sandblast and paint, we have compiled a comprehensive program. Amongst many abrasives such as silicon, slag, iron, water blast and jet blast used in sandblasting, we selected grate copper dross which is in effect copper slag.

Why we selected copper slag as an abrasive.

Copper dross is a mineral matter with a high hardness enjoying the following features:

Higher speed

Work efficiency increase

Surface quality higher increase

And finally due to its generating less dust benefiting employees health, The silica released from it (in the crystallized form) is lower than 1% and has a high density. It is thus the best substitute for silicon sand for surface blasting in the steel structures manufacture industries.

Copper dross is produced and provided in 2 different mat and glossy types, the mat type having density and hardness higher than the glossy and being recyclable in higher grades at most up to 3 times.

How Asgon Felez Co. performs sandblast.

The sand blast hall is 600 m2 vast. The manufactured steel structures are mechanically taken out of the production and assembling hall by gate cranes, mechanically to the sandblast hall in one direction. The main doors are then closed and the conditioning system starts to work with a closed circulation air. Professionally skillful technical operators, equipped with personal protection equipment then start to work.

In customary methods, ceiling and axial fans are used at different paints in the hall to take out the dust generated from sandblast. These fans are most common, and regarding the dust and impurities absorption low pressure, they enjoy a low efficiency, some of which not being able to optimally ventilate the environment and eventually lacking the environmentally optimal quality, If Polluted air leaks out of the hall, the neighboring units and organization for environmental protection will worry.

Regarding the importance of this issue, Asgon Felez Co. managers have been able to select the practically correct method, apply the acquired experience and present a technical / engineering perfect method to take actions to remove the pollutions generated in the sandblast and paint sectors subsequent to the investigations made into the issue and responsibility for the environment, applying technical & scientific Know-How.

Method used to prevent pollution from entering the environment outside the sandblast hall:

The sandblast hall is equipped with 180° circulating portable a jets to lead the dust to the lateral hoods for preventing pollution from entering outside the hall, filtration of the dust generated in the hall and standard ventilation.

The lateral hoods will in turn lead the absorbed dust into the filter located outside the hall.

The notable point in applying these fanjets is that they have a high power by which to put the dust suspended in the air in the direction of the installed snatchers. Due to having a high density of – course, copper dross

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lies on the ground surface, and is in the end, directed to the materials silo by other equipment for reapplication in recycles.

Sandblast dust refinement:

dust is refined in a system equipped with advanced outfits which separate the heavy suspended particles from the clean air and which prevent environmental pollution. Another system presses and vacuums the collected product of the above mentioned particles. After sandblast operations, metal parts are transferred to the cleaning & painting hall in a railed course. Upon a quarter circulation at a 45° angle, the parts are put in a 20×90m hall which has an L-shape at the end which is the parts loading place at predicted points.

Painting safety and sanitation method in Asgon felez Co. paint unit:

The dust from steel parts painting is directed by ventilation powerful fans installed in the paint spraying way for filtration. Using powerful fans, paints solvents and volatiles are directed to the filters installed outside the hall.

Beside providing a breathable space inside the hall, the propagation of such impurities in the environment is also prevented.

Application of filters is the best way of preventing the solvents vapor from propagating outside. Air is most polluted when the spray method is used in painting. In most paints, high – flaming point (over 38° Celsius) solvents are used.

Regarding evaporation, inflammation and pollution, these solvents do not generate a big problem, and are fully controllable upon observing a series of safety principles. When sprayed, some paints which contain low flaming points need more health and environmental control and cares.

Filter collector and paint cascade are among the systems used for preventing air-and – environmental pollution due to solvents propagation through manufacture and paint stations, installed in a paint spray unit. Systems for the ventilation of vapors and poisons from painting are installed at special points and prevent the microdusts from propagating all.

As a result, relying on the energy limitations in our country and optimal application of equipment use methods in production, we apply scientific methods, compile a specific program in the framework of the existing standards, make savings in energy consumption and modernize the structure construction industry to achieve long-term and highly valued objectives.

Sandblast equipment

Item	M/C	Sets
1	2-nozzle air compressor	2
2	Airless Paint Sprayer	4
3	Stirrer	2
4	Gate Crane	1

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In - Progress Projects

Ite	Employer	Description	Performance
m			year
1	Siraf Project Megamethanol Plan	Steel structures and equipment	2016
2	Esfahan Refinery Development Plan	Steel structures & equipment	2016
3	Bakhtar Petrochemical Development plan	Steel structures and equipment	2016
4	Dalahou Petrochemical Development plan	Steel structures and equipment	2016
5	Kangan Development Plan	Steel structures and equipment	2016

Some recent projects

Item	Employer	Description	Performan
			ce year
1	Sanjesh Afzar Asia Co	Industrial steel structures manufacture & installation	2016
2	Ilam Organization for schools	Steel structures manufacture & installation	2016
	Reconstruction and Equipment		
3	Kashan Saipa	Production lines steel structures manufacture &	2015
		installation	
4	Mozabsaz Esfahan	Gate crane manufacture & installation	2014
5	Esfahan Steel	Industrial steel structures manufacture & installation	2013
6	Maygoun Villa Project	Steel structures manufacture & installation	2012
7	Khaikh safi carpet	Industrial steel structures manufacture & installation	2012
8	Rouyan Research Ins. 1	Constructional steel structures manufacture &	2010
		installation	
9	Rouyan Research Ins. 2	Constructional steel structures manufacture &	2010-
		installation	2011
10	Risand Gitabnaz	Industrial steel structures manufacture & installation	2011
11	Saba Foulad Zagros	Industrial steel structures manufacture & installation	2010
12	Parsian	Power transmission post manufacture (Syria &	2010
		Yemen)	
13	Trans Post	Power transmission pylon manufacture	2010
14	Payman Khotout	Power transmission pylon manufacture	2010
15	Fullman	Power transmission post manufacture (khozdar,	2010
		Pakistan)	
16	Masjed Solaiman Oil Co	Manufacture of steel bridges	2010

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Operation License

Islamic Republic of Iran

Iran Ministry of Industries & Mines

OPERATING LICENSE

No.104/51599/1313903 Date: June 14, 2010

This license cancels operating license No.52794 of 2009 as the substitute of the last license based on the circular No.4018/1 and with respect to development plan No.3431 of 2007.

To: Asgon Felez Sepahan Co.

Address: Moorchehkhort Inudstrial Zoe-Sheik Bahaei 1St., #117

With respect to the startup and achieving execution mass production operations, this license is awarded to produce to following products and enjoying its legal privileges.

Mine Products	Annual Capacity	Shifts	ID. No. of goods
1-Different steel construction Products	12000 ton	3	2811110
2-Ceiling crane	1000 ton		29141161
3-Power transmission masts	5000 ton		28111132

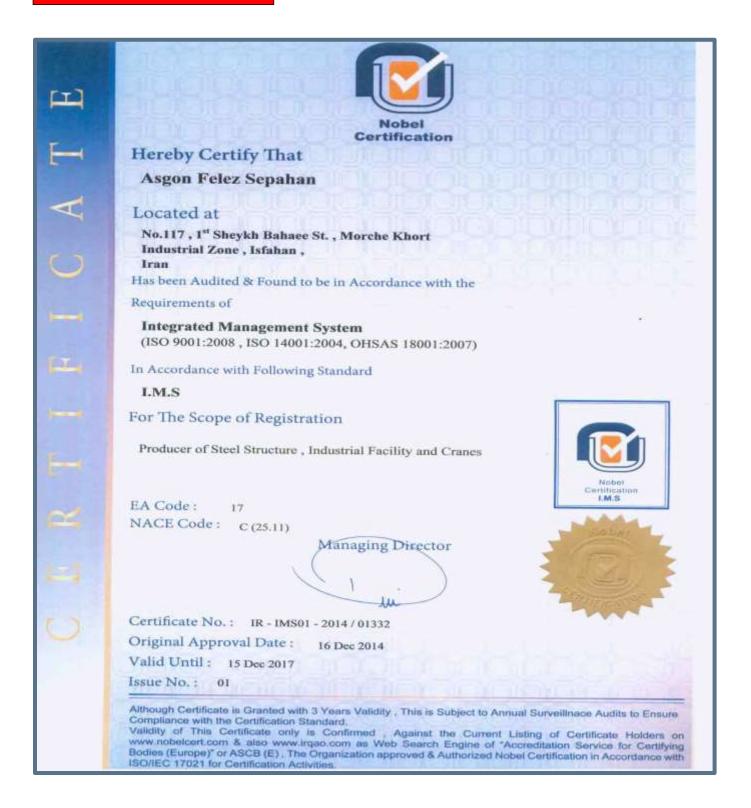
Head of Industries & Mines of Esfahan Province: Signed & Sealed

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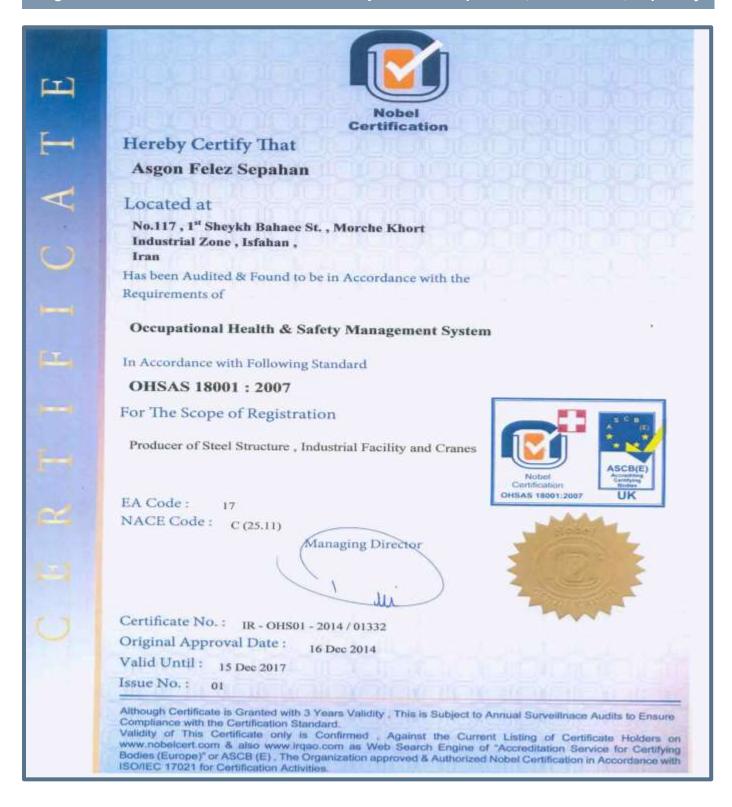
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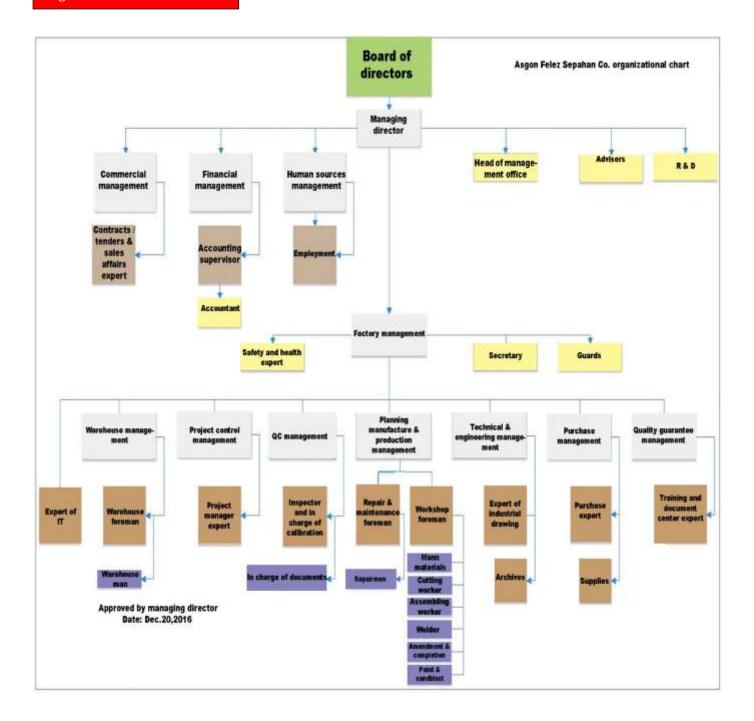


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Organizational Chart



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