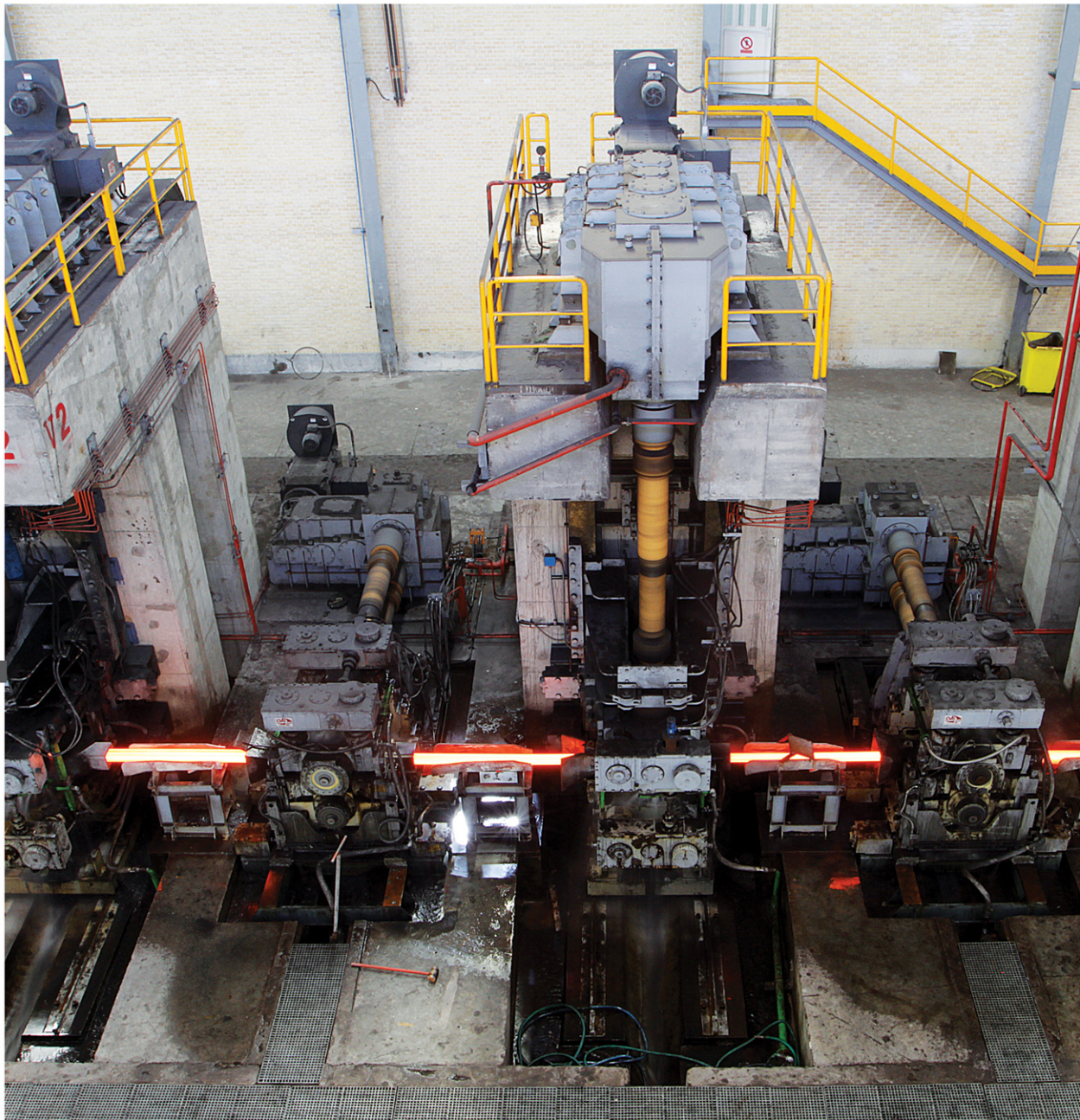




صبا فولاد زاگرس
SABA FOULAD ZAGROS

QUALITY IS OUR MOTTO

Manufacturer of Casting
& Rolled Steel Products



 **Factory:** Sefid Dasht Industrial Zone, 35th Kilometer of Shahrekord to Broujen Highway, Shahrekord, Iran.

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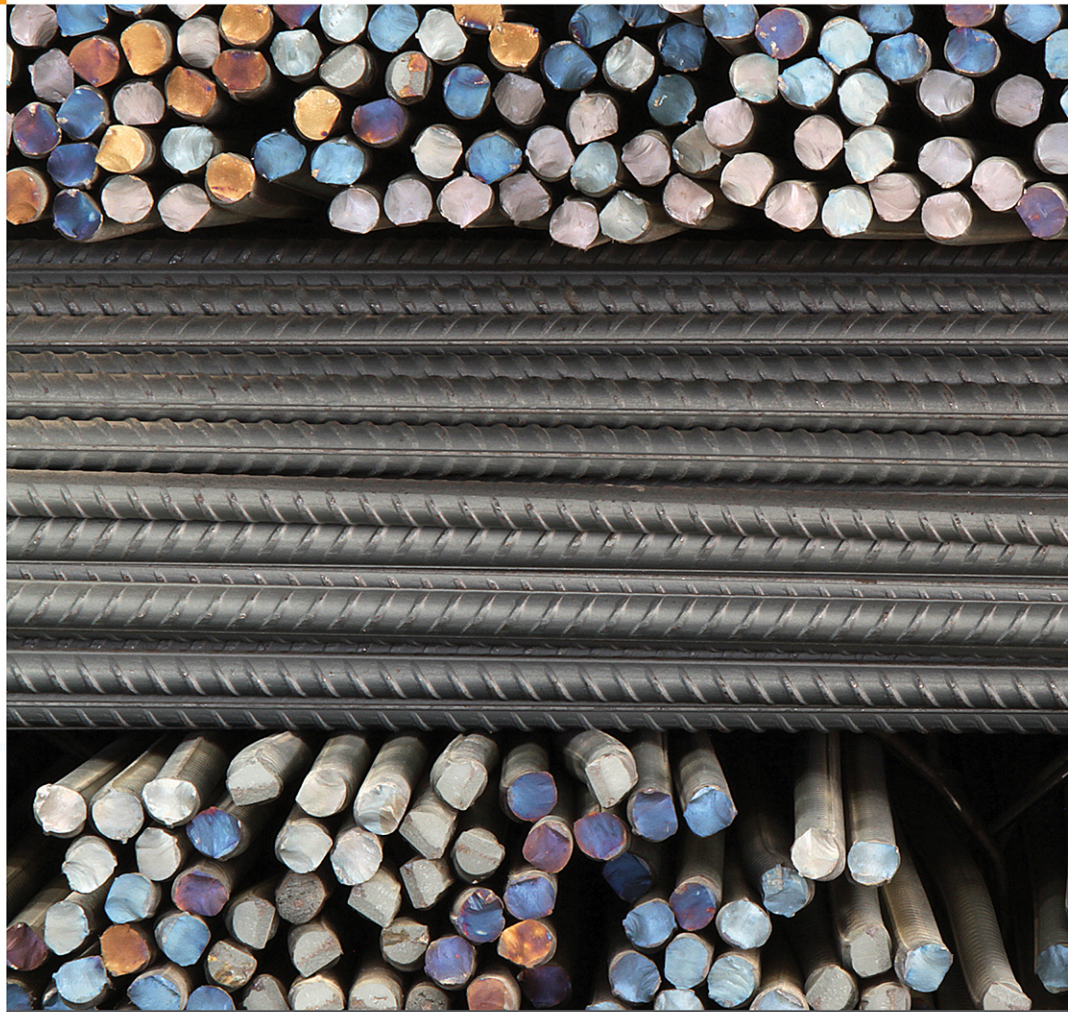
 www.sabasteel.ir  info@sabasteel.ir



صبا فولاد زاگرس
SABA FOULAD ZAGROS



**Producing Rebars by
Holding National
Standard License
ISIRI 3132 Predicated
on Iran National
Standard Organization**



Saba Foulad Zagros Company (Private Joint Stock Company) was incorporated in Chaharmahal va Bakhtiari in December 2009 with the aim of employment in the area and exploiting resources and potential of the province and helping the growth and development of it. Saba Foulad Zagros Complex was established with the private sector investment and with the aim of establishing steel manufacturing plant and rolled-steel section (bar) manufacturing plant with nominal capacity of 450,000 tons in an area of 300,000m² in Shahrak-e Sefid Dasht. The operation of establishment of rolled-steel section manufacturing plant in this complex began in 2010 and was operated in 2013.

The bar manufacturing project was selected as Provincial model plan by Ministry of Industry, Mine, and Trade in the period from 2010 up to 2011. The entire technical knowhow and manufacturing equipment have been designed and implemented making use of salient European sources. Therefore, in addition to the use of state of the art technical knowhow in manufacturing bars has created the least environmental pollution and the most optimized conditions in energy consumption. Among the under construction projects of this complex are creation of steel manufacturing and steel coil production line for completing the production chain. The contract for establishing steel coil production line has been entered into with one of the reputable European companies in 2022.

Given the development of steel industry in our country, Saba Foulad Zagros Complex has always made every endeavor to play a significant role in development of the exports of steel products.



Primary Substance:

The only raw material used in the production of steel rebar is billet. Saba Foulad Zagros Company purchases the required billets from reputable steel factories in the Iran that produce billets with sponge iron in electric arc furnaces. Due to the use of sponge iron instead of scrap iron and steelmaking in electric arc furnaces, both the carbon of the produced ingot is controlled and the number of harmful elements in the steel is minimized, which ultimately increases the quality of the rebar produced. Purchased billets are inspected and tested by the quality control unit upon entering the factory.

Quality control and laboratories:

In order to monitor the product continuously and improve the quality of production, the laboratory and quality control unit of the company, with its advanced equipment and experienced labor, is responsible for testing all products based on the standard.

Billets used in Saba Foulad Zagros Co.

Grade	C	Si	Mn	P	S	N	Ceq
ST 5SP (modified)	0.28 - 0.35	0.2 - 0.25	0.6 - 0.85	≤0.04	≤0.04	≤80ppm	0.38 - 0.5
ST 3SP (modified)	0.17 - 0.22	0.2 - 0.25	0.6 - 0.80	≤0.04	≤0.04	≤80ppm	0.28 - 0.35
ST 4SP (modified)	0.21 - 0.28	0.2 - 0.25	0.6 - 0.80	≤0.04	≤0.04	≤80ppm	0.31 - 0.42
34Mn5	0.30 - 0.37	0.2 - 0.5	1.2 - 1.6	≤0.04	≤0.04	≤80ppm	0.5 - 0.62



Mechanical laboratory:

Includes 2 universal tensile test machines with a capacity of 100 tons with a short course extensometer sensor to calculate the elongation with high accuracy and a bending and re-bending machine with a capacity of 20 tons to perform mechanical product tests, hardness tester to control the hardness of parts such as rolls, etc.

Quantometry laboratory:

To determine chemical composition of the billets consumed in the factory, the produced rebar and the parts imported to the factory-made by the German company, BELECK.

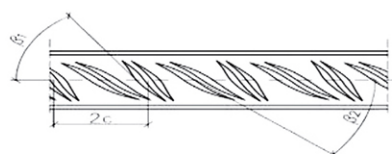


Technical advantages of rebar produced by Saba Foulad Zagros Company:

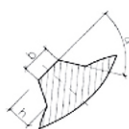
- Production based on Iranian national standard (ISIRI3132) and coverage of international standards, GOST34028, BS4449, ASTM A615
- Product variety from 10 to 40 mm in diameter in grades 400 (A3) and 500 (A4)
- Ability to produce custom length rebars based on customer requirements
- Establish an Integrated Management System (IMS) and receive ISO9001, ISO14001, and ISO45001 certifications from GCL International Accreditation UK.
- Utilizing the latest European rolling technology
- Utilizing raw materials with the best quality and the least number of harmful elements of phosphorus and sulfur produced from sponge iron in electric arc furnaces and continuous casting systems in reputable steel mills
- High mechanical strength with good flexibility and excellent ductility (ratio of tensile to yield strength 1.25 and above)
- Proper adhesion of rebar with concrete according to the accuracy in the dimensions and shape of the rib
- Appropriate fatigue strength due to the quality of raw materials used and the shape and dimensions of the rib to match the standard
- Production of 500 (A4) rebars from billets with low equivalent carbon (to maintain its weldability and ductility)

Geometric dimension values and weight of ribbed rebars

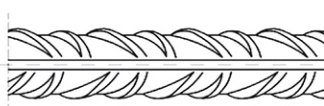
Nominal diameter	Core dia (mm)	Average Spacing (mm)	Height of transversal rib (mm)	Max Height of longitudinal rib (mm)	Relative rib area (FR)	Weight per unit of length, (kg/m)	Weight of a 12-meters branch of rebar (kg)
10	9.5 - 10	6.5	0.65 - 0.95	1	0.052	0.61 - 0.653	7.3 - 7.8
12	11.6 - 12	7.2	0.78 - 1.1	1.2	0.056	0.85 - 0.93	10.2 - 11.2
14	13.3 - 13.8	8.4	0.91 - 1.3	1.4	0.056	1.15 - 1.21	13.8 - 14.5
16	15.2 - 15.8	9.6	1.04 - 1.4	1.6	0.056	1.5 - 1.58	18 - 19
18	17.3 - 17.9	10.8	1.17 - 1.6	1.8	0.056	1.9 - 2	22.8 - 24
20	19.3 - 19.8	12	1.3 - 1.7	2	0.056	2.35 - 2.48	28.2 - 29.8
22	21.2 - 21.6	13.2	1.43 - 1.8	2.2	0.056	2.83 - 2.98	34 - 35.8
25	24.1 - 24.6	15	1.63 - 2.3	2.5	0.056	3.7 - 3.85	44.4 - 46.2
28	27 - 27.6	16.8	1.82 - 2.4	2.8	0.056	4.64 - 4.8	55.7 - 57.6
32	30.98 - 31.5	19.1	2.09 - 2.6	3.2	0.056	6.06 - 6.4	72.7 - 76.8



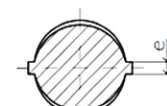
Height of transversal rib (mm): h1



Average Spacing (mm): C



Max Height of longitudinal rib (mm): h2



Deliverable standards:

- ISIRI3132
- GOST34028-2016
- BS4449-2005+A3 2016
- EN10080
- ASTM A615



Different production grades and technical specifications:



ISIRI3132



Standard Grade &	Country	C max	Si max	Mn max	P max	S max	N max	Cu max	Ceq max	Yield strength YS (N/mm ²) min	Ultimate Tensile strength UTS (N/mm ²) min	Ratio UTS/YS min	Elongation Agt min
ISIRI3132 Aj 400 (A3)	Iran	0.37	0.6	1.6	0.045	0.045	NS	NS	NS	400	600	1.25	16
ISIRI3132 Aj 420 (A3)	Iran	0.3	0.55	1.5	0.045	0.045	NS	NS	0.56	400-545	600	1.25	16
ISIRI3132 Aj 500 (A3)	Iran	0.4	0.6	1.8	0.045	0.045	NS	NS	NS	500	650	1.25	10
ISIRI3132 Aj 520 (A3)	Iran	0.32	0.55	1.8	0.045	0.045	NS	NS	0.61	500-675	690	1.25	13
GOST34028 A500C	Russia	0.22	0.9	1.6	0.05	0.05	0.012	0.35	0.5	500	600	1.05	14
GOST5781 A-III (A400)	Russia	0.37	0.6	1.6	0.045	0.045	0.012	0.3	NS	390	590	NS	A5:14
ASTMA615 GRADE 60	America	NS	NS	NS	0.06	NS	NS	NS	NS	420	620	NS	9
ASTMA615 GRADE 75	America	NS	NS	NS	0.06	NS	NS	NS	NS	520	690	NS	7
ASTMA706 GRADE 60	America	0.3	0.5	1.5	0.035	0.045	NS	NS	NS	420-540	550	1.25	10,12,14
BS4449 B500B	England	0.22	NS	NS	0.055	0.055	0.012	0.85	0.52	500	NS	1.08	5
BS4449 B500C	England	0.22	NS	NS	0.055	0.055	0.012	0.85	0.52	500	NS	1.15-1.35	7.5
DIN 488 B500B	Germany	0.22	NS	NS	0.05	0.05	0.012	0.6	D≤28-0.5 D>28-0.48	500	NS	1.08	5
DIN 488 Bst420	Germany	0.22	NS	NS	0.05	0.05	0.012	NS	NS	420	500	NS	A10:10%
TS708 S420	Turkey	0.45	NS	NS	0.05	0.05	NS	NS	NS	420-546	500	1.15	A5:10
TS708 B500B	Turkey	0.22	NS	NS	0.05	0.05	0.012	0.8	0.5	50	NS	1.08	A5:12



Russian Standard Certificate



European Standard Certificate



UK Standard Certificate



ISO 45001:2018



ISO 9001:2015



ISO 14001:2015



Main units of Saba Foulad Zagros Company:

- Producing ribbed roundbar
- Producing all kinds of industrial and construction wirerod and coil form roundbar
- Producing steel billets

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