LONG PRODUCTS



# CATALOG 2024





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### BAKU STEEL COMPANY

Baku Steel Company CJSC being the largest and most state-of-the-art metallurgical enterprise in the South Caucasus, is a company with a leading steel plant and rolling mills that play a key role in advancing the heavy industry in Azerbaijan. The company's grand opening was held on June 21, 2001 with the participation of National Leader Heydar Aliyev. Operating as a Limited Liability Company (LLC) for many years, Baku Steel Company changed its management structure in early 2022 to become a Closed Joint Stock Company (CJSC). At present, Baku Steel Company CJSC is one of the largest taxpayers in the non-oil sector in Azerbaijan.

In 2012-2013, the plant was equipped with a 60-ton Electric Arc Furnace, representing the latest technological achievements and classified as "Ultimate 2". Additionally, a Ladle-Furnace which performs off-furnace processing of liquid steel in in an argon medium, was reconstructed. Lately, in 2021-2022, for setting up the production of round and square billets, Turkish Demora has built a new 4-strand Continuous Casting Machine (CCM) combined in a radius of 10.250 m and equipped with an electromagnetic mixing and automatic liquid steel meniscus level control isotope Cobalt-60.

In addition, equipment produced by the leading companies of the United States, France, Italy, India and other countries was installed at the enterprise. The plant has a perfectly designed gas treatment complex with the suction capacity of 1.5 mln/m3 per hour and operating with a special algorithm that meets environmental requirements.

The operation of the main process units used in the steelmaking and rolling processes is fully automated at the enterprise. Additionally, technical water making and cooling units have been installed. Here, in addition to managing scrap waste, the company specialists have mastered the process.



The plant also has the garage premises equipped with modern equipment, a mechanized warehouse complex, an electrical repair shop, the Baku Steel Construction area, which produces non-standard equipment and complex metal structures, and a mechanical shop equipped with new metalworking machines. To facilitate the efficient melting process of direct reduced iron (DRI) or hot briquetted iron (HBI) in the furnace, a special raw material conveyor was installed in collaboration with the Italian company Danieli. The plant also has the garage premises equipped with modern equipment, a mechanized warehouse complex, an electrical repair shop, the Baku Steel Construction area, which produces non-standard equipment and complex metal structures, and a mechanical shop equipped with new metalworking machines. A 53 MVAR "SVC" unit manufactured by Siemens, Germany has been installed at the plant's power substation.

The company has a certified central laboratory that meets world standards and is equipped with high-quality devices produced in advanced countries such as Japan, Germany and Switzerland enabling precise testing. Extensive reconstruction work has been carried out at the enterprise, landscaping work has been carried out and other relevant measures have been taken to create an ecologically clean microclimate in the territory of the plant.

It is worth noting that in 2022, Baku Steel Company CJSC was granted permanent membership in the World Steel Association, an authoritative international organization representing metallurgists worldwide.







### CERTIFICATES AND QUALITY STANDARDS

Currently, the company operates in compliance with the international standard ISO 9001-2015 - "Quality Management System", which has been tested and approved by the well-known Swiss SGS company for the production of pipes and German FQC company for the production of rebars.

In general, Baku Steel Company CJSC currently holds the following certificates:



pipes for the oil and gas industry GOST 32528-2013 - Seamless steel pipes for the oil and gas industry GOST 34636-2020 - Pipe billets

For pipe production	For rebars production	For billets production
EN 10210-1:2006 - Seamless steel pipes for the oil and gas industry	AZS 538-2011(GOST P 52544- 2006) - Periodically welded	GOST 380-2005 - Square and rectangular billets made of
EN 10216-1:2013	A500C and B500C class rebars for reinforcement of steel and	ordinary quality carbon steel with continuous casting for
EN 10216-2:2013+A1:2019	concrete structures	small bars
ASTM A106/A106 M-18 - Seamless steel pipes for the oil and gas	GOST 34028-2016 – Rebars for steel and concrete structures	GOST 34636-2020 - Pipe billets
industry	EN10080-2005 – Rebars for	EN10025-1:2004 – Hot-rolled
GOST 632-80 - Seamless steel	steel and concrete structures	structural steelwork
pipes for the oil and gas industry	ASTM A615/A615M-20 - Rebars	DIN 17100-1980 – General purpose structural steelwork
GOST 8731-74 - Seamless steel pipes for the oil and gas industry	for steel and concrete structures	
	ASTM A706/A706M-16 - Rebars	
GOST 8732-78 - Seamless steel pipes for the oil and gas industry	for steel and concrete structures	
GOST 31446-2017 - Seamless steel		

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### SALES AND EXPORT

Currently, Baku Steel Company CJSC covers a significant portion of the demand for construction rebars and other profiled products in the local market of Azerbaijan. Besides, the Company accepts orders for cast steel products and delivers finished goods to its customers.

Products of the company have been successfully used for the construction of the Baku-Tbilisi-Ceyhan oil pipeline, a number of industrial facilities, bridges, production of lightening systems and construction of residential and public buildings.

Among the customers of the pipes produced at BSC, in addition to the local market, there are also companies from around the world. Baku Steel Company CJSC has experience in exporting construction rebars, pipes, billets, and profiled castings to more than 20 countries, including Russia, Turkey, Georgia, Kazakhstan, Turkmenistan, Italy and Spain.

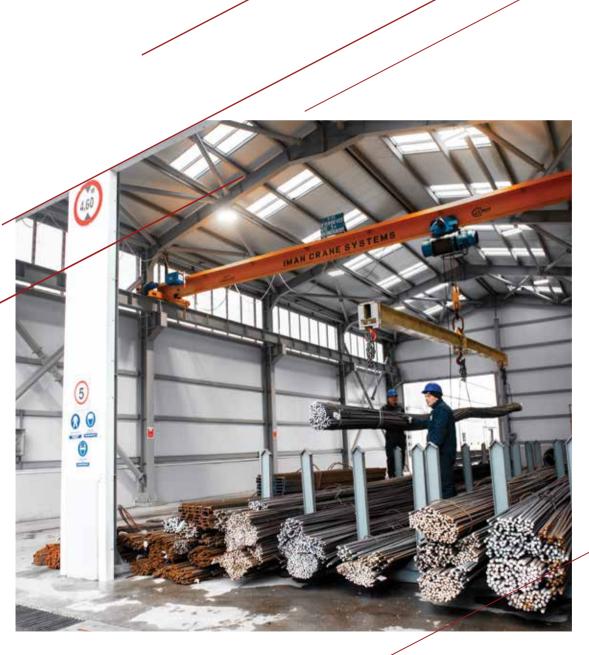
Since the first day of its operation, the company has been working with world-renowned institutions such as Swiss SGS, British BSI (British Standards





Institute) and Austrian TUV. At present, sale of goods manufactured for export is provided according to the quality and quantity guarantees of these companies. To provide the guarantee, they perform fully independent testing of BSC products and endorse the quality certificate issued by the plant.

Baku Steel Company CJSC is proud to present its quality goods and strives to create steady and long-term relationships with every company in the local and foreign markets.





### OCCUPATIONAL SAFETY

Health, Safety and Environment (HSE) is ensured in the company in accordance with the requirements of the legislative acts, state norms and standards of the Republic of Azerbaijan. This serves to the successful implementation of these requirements and the company's HSE policy to ensure the health and safety of employees at BSC, their workplaces and working conditions, adhere to strict control measures, meeting the requirements of occupational safety and health, fire safety rules, sanitary and hygienic norms and other relevant standards.

Baku Steel Company CJSC was selected by the Azerbaijan Trade Union Confederation (ATUC) as the best enterprise of 2021 in the republican competition among 1960 enterprises and organizations for the creation of healthy and safe working conditions.

In order to provide healthy and safe work of the employees, the company has a Training Centre to train on and promote legislative acts, norms and standards on health, safety and environmental protection. The Centre plays an important role in raising the awareness of the company's employees in the area of occupational safety and health, fire safety and first aid for the injured, minimizing potential industrial incidents and accidents.

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### CRUDE STEEL



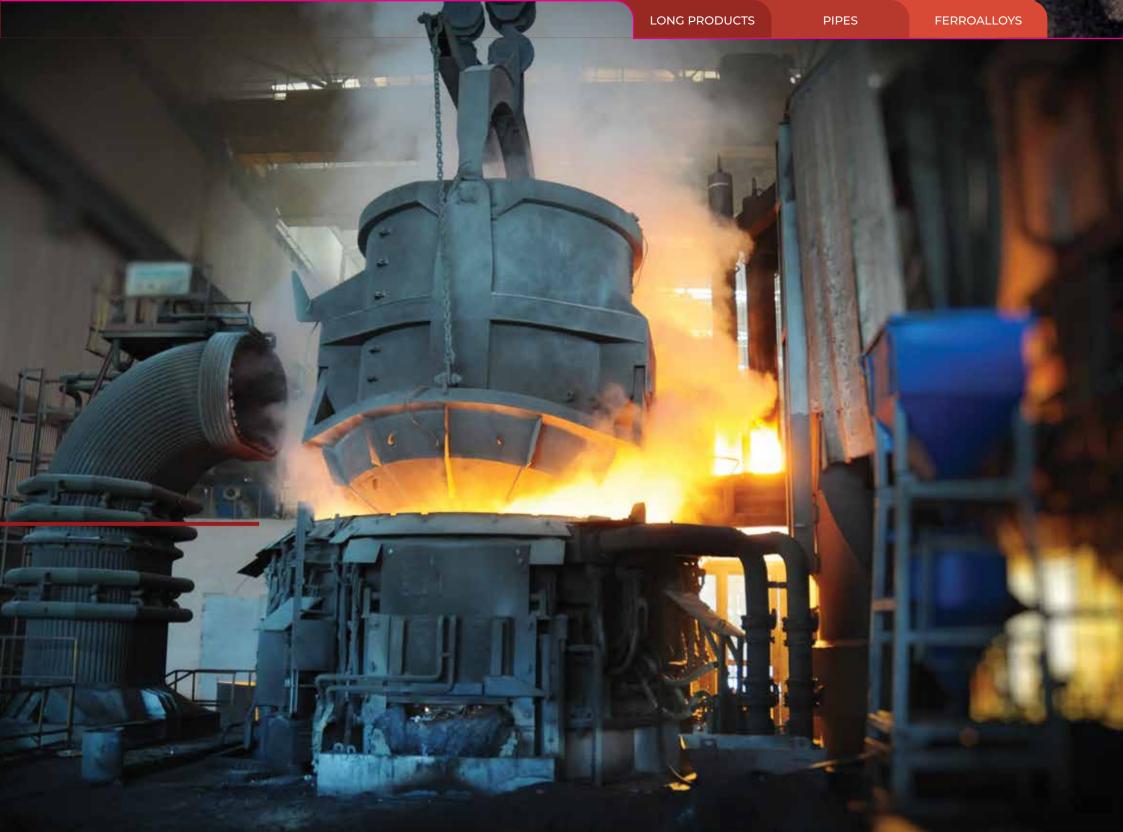


### CRUDE STEEL

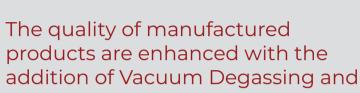
The total steelmaking production capacity of Baku Steel Company CJSC is 650000 – 700000 tons per year. Taking into consideration demand for steel products in domestic and foreign markets, BSC has expanded the range of its products and it has three different types of rolling mills and one seamless pipe rolling mill for this purpose. The company manufactures products such as carbon steel and alloy steel billets, pipes, rebars, as well as profiled angle bars, channels, I beams, wire rods, and cast shapes in compliance with the standards and using modern steelmaking and continuous steel casting technology. The products are sold in high demand to various companies and enterprises both within the country and abroad.

At present, the company produces various types of steel billets with cross-sections of 125x125 and 150x150 mm, with a length range of 3,000-12,000 mm, re-bars with a diameter range of 10-32 mm in accordance with European standards, as well as channels with a dimension range of 80-160 mm, angles with a dimension range 40-125 mm, I-beams with a dimension range of 100- 160 mm and wire rods with a diameter range of 5.5-8.0 mm. In addition, the plant also has the capacity to produce steel billets with a cross-section range of 100x100, 120x120 and 130x130 mm.

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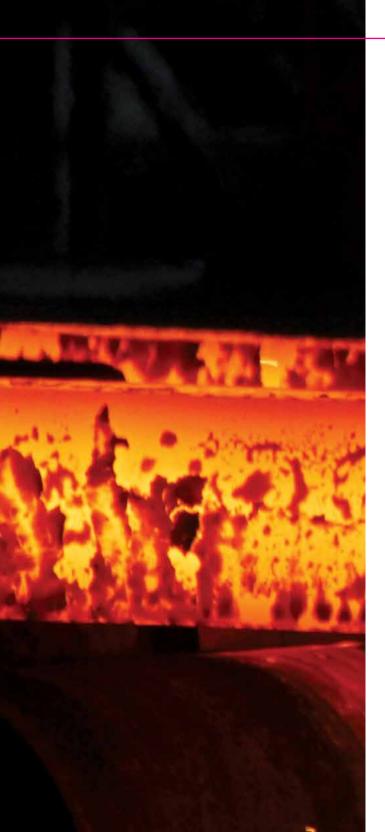


**Closed Casting Systems** 

**BAKU STEEL** COMPANY

> Construction rebars are manufactured in compliance with the requirements of GOST 34028-2016, AZS 538-2011 (GOST 52544-2006), ASTM A615/A615M-20, ASTM A706/A706M-16, EN10080: 2005 standards, while profiled channels, angle bars, I beams, wire rods are produced in compliance with GOST 535-2005, GOST 8240-97, GOST 8509-93, GOST 8239-89 and GOST 30136-94, SAE 1008 ASTM A510 / A510M-20 standards.





The steel is melted in Electric Arc Furnaces manufactured by Siemens VAI of Germany. The liquid steel is transferred to the Continuous Casting Machine, where its chemistry is further adjusted to meet the requirements of the standards in the Ladle-Furnace in a short period. The primary goal in the steel meting process is to minimize tap-to-tap time and ensure fully automatic control of the process. Ordinary quality and carbon steel melting is carried out by order in accordance with the requirements of GOST 380-2005, GOST 1050-88, and low-carbon steel is melted in accordance with GOST 4543-71 standard.

Additionally, the new CCM with a radius of 10,250 mm allows for the casting of round billets in sizes ranging from 130, 150, 160, 170, 190, 220 to 250 mm meeting the requirements of GOST 34636-2020, DIN 17100-80, and EN 10025-1:2004 standards.

This, in turn, allows the production of all types of high-quality casing and general use pipes with a diameter range of 114 mm to 219 mm in the third production area.

In addition, the company produces shaped casting parts, fastening valves and other casting parts in mould casting shop. Also, bimetallic rolls used in the rolling mill are produced in different diameters and sizes there.





## QUALITY AND TECHNOLOGY

Product description	Continuous cast steel billet	Rebars for steel and concrete structures reinforced by applying hot and thermomechanic processing								
Names of standards	GOST 280-2005, EN 10025-2004	GOST 34028-2016, GOST 52544-2006								
Steel grade / rebar's class	Ст 3 сп Ст 5 сп	Ат 400 с Ат 500 с Ат 1000 А 500 с								
Profile / Diameter (mm)	120x120, 150x150	8, 10, 12, 14, 16, 18, 20, 22, 25, 28, <mark>32</mark>								
Length (mm)	6000, 11700, 12000									





	С	0.14 - 0.22	0.28 - 0.37	0.24	< 0.32		< 0.22
	Mn	0.4 - 0.65	0.5 - 0.8	0.5	5 - 1.5	0.6 - 2.3	< 1.6
	Si	0.15 - 0.3	0.15 - 0.3	(	).65	0.6 - 2.4	< 0.9
	Р	< 0.04	< 0.04		0.045		0.05
Chemistry (%)	S	< 0.05	< 0.05		0.05		0.05
	Cr	< 0.3	< 0.3		< 0.3		
	Ni	< 0.3	< 0.3	7	< 0.3		-
	Cu	< 0.3	< 0.3		< 0.3		0.5
	R <sub>02</sub>	N/mm <sup>2</sup>		440 - 6 <mark>4</mark> 0	500 - 700	1000	500 - 700
	R	N/mm <sup>2</sup>		560 - 6 <mark>6</mark> 0	600 - 800	1250	600 - 800
Mechanical		A <sub>5</sub>		16	14	7	14
properties	Tensile str	ain <sub>A<sub>10</sub></sub>		2. A - 1 A	-	2	
		Angle		90°	90 <sup>°</sup>	45°	90 <sup>0</sup>
	Cold bend	ing Bending diameter		3d 5d		5d	3d



### **TECHNOLOGICAL ANALYSIS**



The product quality is thoroughly controlled by our analyzer and mechanical testing laboratory, which provides chemical and spectral determination of steel composition. The detailed chemistry of liquid steel is accurately determined for 21 elements. Before proceeding to the CCM it is adjusted to meet the standards by adding ferroalloys and other materials.

In this way the chemistry and mechanical properties of produced rebars meet the requirements of the highest standards. Manufacturing operations commence from processing and composing furnace charge. It is melted in the Furnace and then tapped to the ladle at high temperature. The composition of the Liquid metal in the ladle is adjusted and it is subsequently transferred to the Continuous Casting Machine. Here, the liquid steel is converted into square and round billets form by flowing into the crystallizer moulds, where are Cobalt-60 isotope and electromagnetic stirrer used in four strands.

The square billets are reheated to rolling temperature and after passing through pressurized processing are subjected to thermomechanical processing for increasing mechanical properties of the product and subsequently rolled into the shape of rebars and structural sections. Rebars made from each melting undergo testing to determine their mechanical and physical properties, and the results of such tests are reflected in certificates attached to the product when it is sold.



Compliance of the goods cast at our enterprise to applicable norms and technical requirements is guaranteed. Round billets are used for the production of seamless pipes in the 3rd production area in Sumgayit.

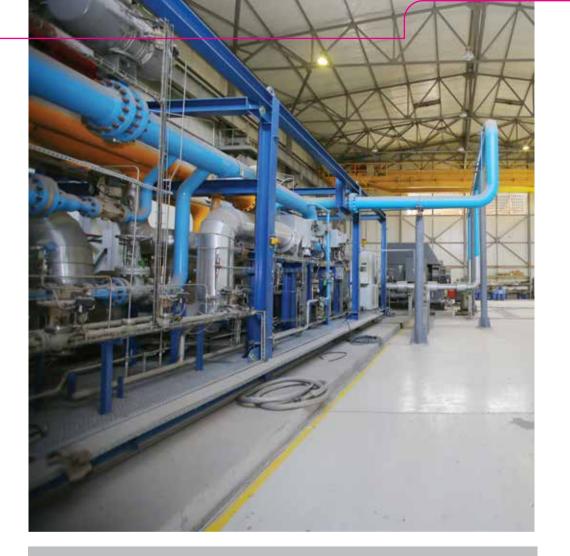
Relevant state bodies of the Republic of Azerbaijan have issued a national conformance certificate to the produced steel rebars. The quality of the products produced here was also verified in laboratories operating in foreign countries yielding positive results.

Baku Steel Company CJSC maintains the international standard ISO 9001: 2015 – "Quality Management System".

Up to this date, the plant's products have been demonstrated at various international exhibitions in Moscow, Astana, Tabriz and Baku, earning various quality certificates each time.







# PRODUCTION CAPACITY OF OXYGEN SHOP 1. Gaseous oxygen 5000 m³/hour 2. Liquid and gaseous oxygen 500 m³/ hour + 4500 m³/ hour 3. Liquid nitrogen and gaseous oxygen 450 m³/ hour + 4500 m³/ hour

### OXYGEN AND NITROGEN PRODUCTION

The largest and the most modern oxygen shop in the South Caucasus is also located at the territory of Baku Steel Company CJSC. The equipment in the shop, which produces oxygen and liquid nitrogen, was purchased from French Air Liquide company. In 2016, the opening ceremony of the shop was held with the participation of the President of the Republic of Azerbaijan, Mr. Ilham Aliyev. The Sigma H190 oxygen generator in the shop is based on the most modern and safe technologies. Oxygen received from this unit is automatically regulated by 3-stage gas analyzers to a purity level of 99.9%.

### The operation of the unit is regulated in 3 modes and its productivity is as follows:

The company is certified to produce high quality medical liquid oxygen. The liquid oxygen produced in the shop meets the needs of Baku Steel Company CJSC and is exported to domestic and foreign markets.



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### LONG PRODUCTS



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### SQUARE BILLETS

	SQUARE BILLETS PRODUCED BY THE CONTINUOUS CASTING METHOD (GOST 380-2005, TRAZ 3098830-02-2001)																
	Square billet size, mm	Runi	ning met	ter, kg	grade		Che		Mechanical properties								
Nº		1000 mm	"6000 mm	12000 mm	Steel gr	С	Mn	Si	Ρ	S	Cr	Ni	Cu	Rm	R0.2	δ	Bending 90°
1	100 x 100	78,5	471,0	942,0		0,23	-	-	0,07	0,06	0,3	0,3	0,3	max 300	-	18	-
2	120 x 120	112,3	673,8	1347,6	СтО	0.06-0.12	0.25-0.50	0,05 0.05-0.15 0.15-0.30	0,04	0,05	0,3	0,3	0,3	315-410	205	34	d=a
3	125 x 125	121,0	726,0	1452,0	Ст1 Ст2	0.09-0.15	0.25-0.50	0,05 0.05-0.15 0.15-0.30	0,04	0,05	0,3	0,3	0,3	335-430	225	32	d=a
4	130 x 130	130,6	783,6	1567,2	Ст3	0.14-0.22	0.40-0.65	0,05 0.05-0.15 0.15-0.30	0,04	0,05	0,3	0,3	0,3	370-480	245	26	d=a
5	140 x 140	153,8	923,2	1846,3	Ст4 Ст5	0.18-0.27	0,40-0,70	0,05 0.05-0.15 0.15-0.30	0,04	0,05	0,3	0,3	0,3	420-540	270	24	d=2a
6	150 x 150	175,4	1052,4	2104,8		0,28-0,37	0,50-0,80	0,05 0.05-0.15 0.15-0.30	0,04	0,05	0,3	0,3	0,3	490-630	295	20	d=3a

Square billets used for construction rebars are cast at a 4 strand radial continuous casting machine (CCM) made by Demora, Turkey. Billets are produced in cross sections of 125x 125and 150 x 150 with lengths ranging from 3,000 to12,000 mm





### ROUND BILLETS

Round billets with flat surface are made in compliance with GOST 535-2005, GOST 2590-2006, GOST 380-2005 requirements and in diameter range of 10-28 mm, length range of 3000-12000 mm and weigh up to 3000- 5000 kg per bundle.

The finished products packed in bundles are marked with a quality certificate and transported to the warehouse.

Labels attached to the bundles reflect information on the produced round billets standard, steel grade, heat or party number, diameter, length, weight and other parameters.



### Characteristics of round billets produced by Baku Steel Company CJSC COST 34636-2020, GOST 2590-2006, EN 10025-2004, DIN 17100-1980

	The diameter of the round billets mm	Running meter, kg			ade	မ္ Chemical composition															
Nº		1000 mm	6000 mm	12000 mm	Steel grade		Mn	Si	Ρ	S	Cr	Ni	Cu	Al	Мо	V	N <sub>2</sub>	O <sub>2</sub>			
1	Ø 130	103,1	618,6	1237,2	09F2C	0,12	1,30-1,70	0,50- 0,80	0,035	0,040	0,25	0,25	0,25	0,025	0,025	-	0,008	0,009			
2	Ø 150	138,7	832,2	1664,4	Ст20	0,17-0,24	0,35-0,65	0,17-0,35	0,035	0,040	0,25	0,25	0,25	0,025	0,025	-	0,008	0,009			
	- 				Ст35	0,32-0,40	0,50-0,80	0,17-0,37	0,030	0,035	0,25	0,30	0,30	0,025	0,015	-	0,008	0,009			
2	Ø 160	157,8	946,8	1893,6	Ст45	0,42-0,50	0,50-0,80	0,17-0,37	0,035	0,040	0,25	0,25	0,25	0,025	0,025	-	0,008	0,009			
3	Ø 170	175 7	75,7 1054,2	1054.2	7 1054.2	1054,2	2108,4	32Г2	0,30-0,35	1,20-1,60	0,17-037	0,035	0,035	0,30	0,25	0,20	0,025	0,025	-	0,008	0,009
		173,7			17F1C	0,15-0,20	1,15-1,60	0,4-0,6	0,030	0,035	0,30	0,30	0,30	0,025	0,025	-	0,008	0,009			
4	Ø 190	220,2	1321,2	2642,4	13ХФА	0,11-0,17	0,40-0,65	0,17-0,37	0,030	0,025	0,50-0,70	0,30	0,30	0,025	0,11	0,04-0,09	0,008	0,009			
	<i>d</i> 220		1770 /	7556.0	ЗОХГСА	0,28-0,34	0,80-1,10	0,90-1,20	0,030	0,030	0,80-1,10	0,25	0,25	0,025	0,025	-	0,008	0,009			
5	Ø 220	296,4 385,3	296,4	1778,4	3556,8	S355J2H	0,17-0,20	1,20-1,40	0,17-0,30	0,020	0,015	0,25	0,30	0,30	0,020	0,050	-	0,008	0,009		
6	Ø 250		35,3 2311,8	2311,8	2311,8 4623,6 -	St52	0,18-0,22	1,20-1,60	0,40- 0,55	0,025	0,025	-	-	-	-	-	-	0,008	0,009		



### REBARS

Construction rebars are available in diameter range of 10 - 32 mm cut to lengths of 6000 -12000 mm.

Produced rebars are tied in bundles weighing up to 3000-5000 kg depending on customers' orders and sent to the Finished Goods Warehouse furnished with a quality mark. Strength class, standard, diameter, melt number, length, weight, steel grade and other parameters are indicated on the labels attached to every bundle. Identification marks of the plant are engraved on finished construction rebars.



	Profile	10	12	14	16	18	20	22	25	28	32
	Fo, sm²	0.785	1.131	1.54	2.01	2.45	3.14	3.80	4.91	6.16	8.04
(kg)	Maximum 0.580		80 0.835 1.13		1.137	1.900	2.347	2.931	3.658	4.589	6.058
Veight (I	Normal	0.617	0.88	1.210	1.580	2.00	2.470	2.980	3.850	4.830	6.310
Wei	Maximum	0.648	0.932	1.271	1.627	2.060	2.544	3.069	3.965	4.975	6.499

FERROALLOYS

#### CHARACTERISTICS OF STEEL REBARS PRODUCED AT BAKU STEEL COMPANY CJSC

			er of ducts )	Mechanical properties					on lent ky in state		area ght r	Cross section	Rur	Running meter	
Nº	Steel grade	Standard	Diameter of steel products (mm)	Limits	$R_{t}$	$R_{m}$	d <sub>5</sub>	d <sub>10</sub>	Carbon equivalent Ce %	Flexibility in cold a state	Cross- sectional area and weight per running meter	F (mm)		Pm (kg	)
					N/n	nm²		%	Φ	ΞŬ	De al	nom	min	nom	max
1	At400C	GOST	1032	min	440	570	16	-	32-39	90°	8	50,3	0,367	0,395	0,430
I	At400C	10884-94	1032	max	620	730		-	32-39	90°	10	78,5	0,579	0,617	0,647
2	A ( 0.0	GOST	10.70	min	390	590	14				12	113,1	0,834	0,888	0,932
2	A400	5781-82	1032	max	590	750			<sup>=</sup> <40 90°	90°	14	154,4	1,137	1,210	1,270
7		GOST 10884-94	10 70	min	500	600	14		. (0	90°	16	201,3	1,501	1,580	1,627
3	At500C		1032	max	700	800			>40 9	90°	18	254,8	1,900	2,000	2,060
,	45000	GOST	10.70	min	500	600	14		.50		20	314,6	2,347	2,470	2,544
4	A500C	P 52544- 2006	1032	max	700	800			<50	90°	22	379,6	2,831	2,980	3,069
-	44/2000	TCAZ	10.70	min	420	530	-	10		0.00	25	490,4	3,658	3,850	3,965
5	At420C	3098830- 01-2001	1032	max	620	750			<62 90	90°	28	615,3	4,589	4,830	4,975
6	At 1000	GOST 10884-94	1032	max	1000	1250	7	-	-	45°	32	803,8	6,058	6,310	6,499

1. For this class of reinforcement, an increase in the Rm value to 200 N/mm<sup>2</sup> is allowed.

2. The content of Cr and Ni in A500s rebars should not exceed Ce≤50





### WIRE RODS

Wire rods are produced in diameter range of 5.5-8.0 mm and are sent to the Finished Goods Warehouse in bundles weighing up to 500-650 kg furnished with a quality mark. Steel grade, standard, diameter, melt or batch number, length, weight, and other parameters are indicated on labels attached to every bundle.



#### FERROALLOYS



Nº	Size of wire rod		d, mm		"Cross sectional	Running meter		eter	grade	Oxidation degree	Chemical composition						Me	echanical properties							
IN≐	Size o ro	min	nom	max	area Fn, cm²"	min	nom	max	Steel	Oxid deg	С	Mn	Si	Ρ	S	Cr	Ni	Cu	Rm	R0.2	ψ	Bending			
1	5	4,5	5,0	5,4	0,1963	0,143	0,154	0,168	СтО		0,23	-	-	0,07	0,06	0,3	0,3	0,3	420	-	68	180°			
2	5,5	5,0	5,5	5,8	0,2376	0,173	0,186	0,203		кп	0.06-0.12	0.25-0.50	0,05	0,04	0,05	0,3	0,3	0,3							
3	6	5,5	6,0	6,3	0,2827	0,206	0,222		Ст1	пс	0.6-0.12	0.25-0.50	0.05-0.15	0,04	0,05	0,3	0,3	0,3	420	-	68	180°			
3	6	5,5	6,0	6,3	0,2827	0,206	0,222	0,242		сп	0.06-0.12	0.25-0.50	0.15-0.30	0,04	0,05	0,3	0,3	0,3							
4	6,3	5,8	6,3	6,6	0,3117	0,228	0,245	0.267		КП	0.09-0.15	0.25-0.50	0,05	0,04	0,05	0,3	0,3	0,3							
4	0,0	5,0	0,5	0,0	0,5117	0,220	0,245	0,207	Ст2	ПС	0.09-0.15	0.25-0.50	0.05-0.15	0,04	0,05	0,3	0,3	0,3	420	-	60	180°			
5	6,5	6,0	6,5	6,8	0,3318	0,242	0,260	0,283	5				сп	0.09-0.15	0.25-0.50	0.15-0.30	0,04	0,05	0,3	0,3	0,3				
6	7	6,5	7,0	7,3	0,3848	0,281	0,302	0,329		КП	0.14-0.22	0.30-0.60	0,05	0,04	0,05	0,3	0,3	0,3							
7	8	7,5	8,0	8,3	0,5027	0,367	0,395	0,430	Ст3	пс	0.14-0.22	0.40-0.65	0.05-0.15	0,04	0,05	0,3	0,3	0,3	490	-	60	180°			
8	9	8,5	9,0	9,3	0,6362	0,464	0,499	0,544		сп	0.14-0.22	0.40-0.65	0.15-0.30	0,04	0,05	0,3	0,3	0,3							

100

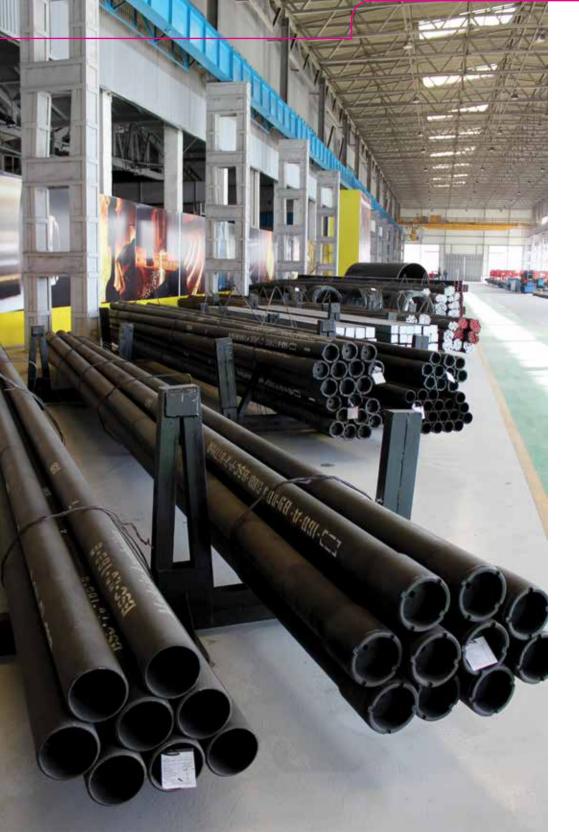
- 1. Deviation in wire rod diameter is allowed as ±0.5 mm.
- 2. Allowed deviation in wire rod weight is +9 to -7%
- 3. The minimum weight of a coil of wire rod is accepted to be 160 kg.



# PIPES



PIPES



# PIPES

Seamless pipes with a diameter range of 114-219 mm are produced at RMA-250 unit in the pipe rolling area of the company. Provision of tightness of the round furnace of the unit and fit in of modern burners made the rolling process automated. Owing to the procurement of a billet centralizing unit and new hydraulic centralizers, the inlet/ outlet lines of the piercing machine are now automated.

Seamless pipes with a diameter range of 114-219 mm are produced at RMA-250 unit in the pipe rolling area of the company.

Pipe threading and couplings are made using German EMAG machines with digital control. Casings and couplings are connected automatically using a machine purchased from the Italian Lazzari company. Hydrotests are accomplished using Japanese YAMASUI press and chemical tests are carried out using a new multichannel optic spectrometer. Volga-16-002-TK-NJN ultrasonic control device ensures detection of inner defects and control of wall thickness without affecting the produced goods integrity. Detection of internal defects and control of wall thickness without compromising the integrity of the pipes is carried out on the ultrasonic device "Volga-16-002-TK-PEP".

### PIPES - GOST 8731/8732, GOST 32528-2013, API 5L\*

Steel	Outside diameter	Weight of 1 running meter with wall thickness												
grade <sup>·</sup>	mm	5	6	7	8	9	10	11	12	14	16	18	20	
СТ20; .	114	13,44	15,98	18,47	20,91	23,31	25,65	27,94	30,19	34,53	38,67	42,62	46,36	
СТ35; СТ45; 09Г2С;	127	15,04	17,90	20,72	23,48	26,19	28,85	31,47	34,03	39,01	43,80	48,39	52,78	
17ГІС; 13ХФА; 18Г2С;	133	15,78	18,79	21,75	24,66	27,52	30,33	33,10	35,81	41,09	46,17	51,05	55,73	
L175 or A25	140	16,65	19,83	22,96	26,04	29,08	32,06	34,99	37,88	43,50	48,93	54,16	59,19	
L175P or A25P L210 or A	146	17,39	20,72	24,00	27,23	30,41	33,54	36,62	39,66	45,57	51,30	56,82	62,15	
L245 or B L290 or X42	159	18,99	22,64	26,24	29,79	33,29	36,75	40,15	43,50	50,06	56,43	62,59	68,56	
L320 or X46 L360 or	168	20,10	23,97	27,79	31,57	35,29	38,97	42,59	46,17	53,17	59,98	66,59	73,00	
X52 L390 or	178	21,33	25,45	29,52	33,54	37,51	41,43	45,30	49,13	56,62	63,92	71,03	77,93	
X56 L415 or X60	187	22,44	26,78	31,07	35,32	39,51	43,65	47,74	51,79	59,73	67,47	75,02	82,37	
L450 or X65 L485 or	194	23,31	27,82	32,28	36,70	41,06	45,38	49,64	53,86	62,15	70,24	78,13	85,82	
X70	219	26,39	31,52	36,60	41,63	46,61	51,54	56,43	61,26	70,78	80,10	89,23	98,15	

### **PIPES** - EN 10210, EN10297, EN 10216-2:2013+A1:2019, EN 10216-1:2013

Steel grade	Diameter	Wall thickness	Weight of 1 - r. m.		
	mm	mm	kq/m		
		6	16,03		
	11 / 7	6,3	16,78		
S235JRH;	114,3	8	20,97		
S275JOH;		10	25,72		
S275J2H;		8	25,98		
S355JOH;	139,7	10	31,99		
S355J2H;	133,7	12	37,79		
S355K2H;		12,5	39,21		
		6,3	25,17		
E275K2;	168,3	8	31,63		
E355K2;	100,5	10	39,04		
E420J2;		12,5	48,03		
E460K2;		8	33,50		
E590K2;	177,8	10	41,38		
P195 TR1 and 2;		12,5	50,96		
P195 TR1 and 2;		8	33,50		
P265 TR1 and 2;		10	41,38		
P195 TR1 and 2;	193,7	12,5	50,96		
		14,2	57,29		
P195 TR1 and 2;		16	63,84		
P195GH;		8	33,50		
P235GH;		10	41,38		
P265GH;	219,1	12,5	50,96		
20MnNb6	213,1	14,2	57,29		
		16	63,84		
		20	77,83		

NOTE:

\* - The API certification process is ongoing



PIPES - ASTM A106/A53

Charal area do	Outs	ide diameter	Wall th	ickness	Weight	of 1 running meter
Steel grade -	inch	mm	inch	mm	kg/m	pound/foot
States -		a find the second second second	0,237	6,02	16,08	10,80
		3 111	0,25	6,35	16,91	11,36
			0,281	7,14	18,87	12,68
	4,5	114,3 —	0,312	7,92	20,78	13,96
			0,337	8,56	22,32	15,00
		State of the local division of the local div	0,438	11,13	28,32	19,03
	and the state of the	the state of the state	0,258	6,55	21,77	14,63
			0,281	7,14	23,62	15,87
			0,312	7,92	26,05	17,51
	5,563	141,3	0,344	8,74	28,57	19,20
			0,375	9,52	30,94	20,79
			0,5	12,7	40,28	27,07
			0,625	15,88	49,12	33,01
ا ا سب		the second s	0,25	6,35	25,36	17,04
Gr.A, Gr.B, Gr.C			0,28 7,11 28,26	28,26	18,99	
	6.625		0,312	7,92	31,33	21,05
		1007	0,344	8,74 34,39		23,11
	6,625	168,3 —	0,375	9,52	37,28	25,05
			0,432	10,97	42,56	28,60
			0,562	14,27	54,21	36,43
1			0,719	18,26	67,57	45,40
			0,322	8,18	42,55	28,59
			0,344	8,74	45,34	30,47
			0,375	9,52	49,20	33,07
	0.025	2101	0,406	10,31	53,09	35,67
	8,625	219,1 —	0,438	11,13	57,08	38,36
			0,5	12,7	64,64	43,44
			0,594	15,09	75,92	51,02
			0,719	18,26	90,44	60,78

### PIPES - GOST 31446-2017, 632-80, API 5CT\*

Steel grade	Outside dia	meter	Wall th	ickness	Weight of 1 running meter		
Steel grade	inch	mm	inch	mm	kg/m	pound/foot	
			0,25	6,35	16,91	11,36	
	4,5	114,3	0,29	7,37	19,43	13,05	
			0,337	8,56	22,32	15,00	
			0,253	6,43	19,11	12,84	
			0,296	7,52	22,15	14,89	
		1017.000	0,362	9,19	26,71	17,95	
	5	127,00 -	0,437	11,10	31,73	21,32	
			0,478	12,14	34,39	23,11	
			0,5	12,70	35,80	24,06	
			0,275	6,99	22,86	15,36	
*			0,304	7,72	25,13	16,89	
2	5,5	139,7 -	0,361	9,17	29,52	19,84	
Д, Е, К, Л, Н40, J55, K55, N80 (all types), P1l0		_	0,415	10,54	33,58	22,56	
D.			0,288	7,32	29,04	19,52	
=	6.625	-	0,352	8,94	35,14	23,61	
0 O	6,625	168,3 -	0,417	10,59	41,19	27,68	
<sup>©</sup> Z			0,475	12,07	46,49	31,24	
(55			0,317	8,05	33,71	22,65	
		155.0	0,362	9,19	38,23	25,69	
ő			0,408	10,36	42,79	28,76	
Ţ Ţ	7	177,8 -	0,453	11,51	47,19	31,71	
5			0,498	12,65	51,52	34,62	
х ш			0,54	13,72	55,50	37,30	
d.			0,328	8,33	38,08	25,59	
			0,375	9,53	43,26	29,07	
	7,625	193,675	0,43	10,92	49,23	33,08	
		-	0,5	12,70	56,68	38,09	
		-	0,562	14,27	63,16	42,44	
			0,352	8,94	46,34	31,14	
			0,4	10,16	52,35	35,18	
		/	0,45	11,43	58,54	39,34	
	8,625***	219,1 -	0,5	12,70	64,64	43,44	
		-	0,557	14,15	71,51	48,05	
		-	0,5	12,70	64,64	43,44	

\* - The API certification process is ongoing



### FERROALLOYS



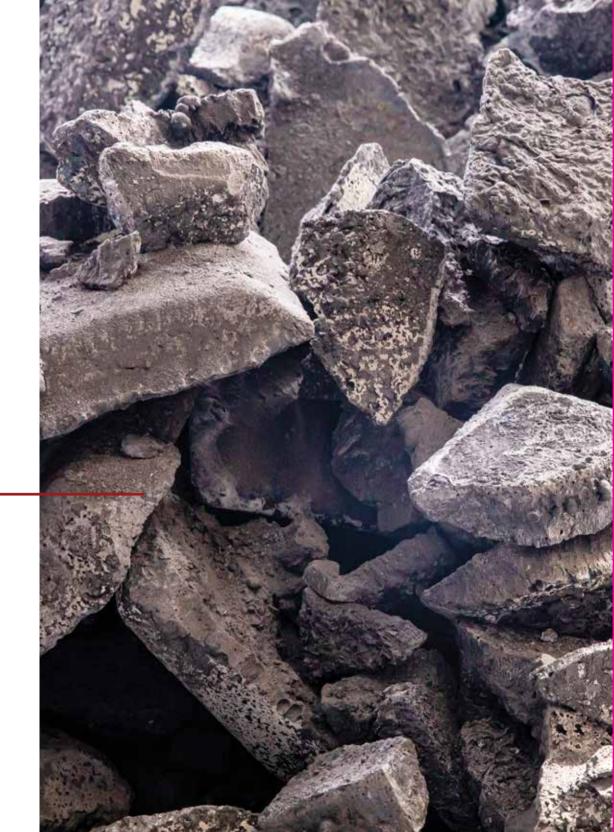






## THE FERROALLOYS PRODUCTION SITE

The Ferroalloy Production Site at Baku Steel Company CJSC produces ferrosilicon (FeSi) of various qualities and fractions (FeSi60% - FeSi75%, fraction 0-100 mm), used as an oxidizing and alloying additive for the smelting of various types of steel and other materials that are resistant to electricity, tension, corrosion and heat.











10-50 mm

10-100 mm

### Main indicators of the Ferroalloys production site:

- At the Ferroalloy production site, High-silicon FeSi75 Ferroalloys, primarily consumed by metallurgical enterprises, are produced using a RKO-33 type furnace with a maximum capacity of 33MVA, operating at a range of 21-23 MVA.
- This furnace is capable to produce up to 50 tons of FeSi75 per day.
- The total production capacity of the facility ranges from 1500 to 1800 tons per month (depending on the grade of the produced products).
- Activities are in progress at the facility in order to install a second furnace with the aim of increasing the monthly production capacity to 3600 tons.
- Approximately 7 kilograms of FeSi are consumed for every ton of the produced steel.
- 172 employees work at the facility.



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