

MINI-PLANT FOR THE PRODUCTION OF COMPLEX ALLOYS

About the project

The aim of the project is to create an innovative production of complex alloys, primarily boron-containing, by the carbon-thermal method.

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Technology Description	The reduction of the oxides of the leading element of ferroalloy (B, Mn, Cr, etc.) by carbon in the presence of iron occurs at a lower temperature, faster, more complete and with lower energy costs. The melting point of ferroalloys, with few exceptions, is lower than that of pure metal. This facilitates its dissolution when introduced into the liquid steel and leads to a reduction in the carbon monoxide of the leading element. The cost of an element in ferroalloy is lower than in technically pure metal. The standard content of components in ferroalloys is determined by the chemical composition of the raw materials, the conditions for smelting ferroalloys and their introduction into liquid steel.
Application area	 for alloying steel, alloys and cast iron; improvement of technical, mechanical and operational indicators of ferrous metals; for the production of high-strength steel and cast iron; for the production of welding electrodes; for the production of high-strength hardware.
Project objectives	 creation of import-substituting production with high added value of output production; introduction of innovative technology that allows to improve the quality of manufactured metal products.
Product	ferroalloys with boron, titanium, chromium, etc.
Raw material	silicon-iron alloy (ferrosilicon)
Main consumers	companies that have foundries that use ferroalloys

Ferroalloys

intermediate alloys of steel alloying components with iron. They are used for alloying and deoxidizing steel or alloys, for modifying or alloying cast iron.

The main advantages of the project

An innovative technology is proposed allows the absorption of **60-75% of boron** in the alloy. To obtain complex alloys, **lowerquality and cheaper** ore raw materials, production waste, poor and complex ores can be used.

Boron is introduced into steel to increase hardenability and improve mechanical properties. Alloys containing boron have exceptionally high resistance to abrasion. Foreign trade statistics of the Republic of Belarus by ferroalloys, thousand US dollars



According to the National Statistical Committee of the Republic of Belarus

Possible forms of investor participation

- Contribution to the authorized capital of a new enterprise
- Acquisition of a block of shares (shares in the authorized capital) of an existing enterprise
- Other forms of participation are also considered

Project finance

The total investment cost of the project is estimated at USD 1 million with the installation of one melting furnace.

NATIONAL AGENCY OF Investment and privatization

The Agency is ready to help foreign investors interested in doing business in Belarus:

- Presentation of information on investment opportunities, preferential regimes and benefits, industries, legislation
- Provision of current information on investment projects
- Selection and provision of information on options for land and premises
- Search for potential partners for the implementation of the investment project; organization of meetings, negotiations with potential partners to establish cooperation

- Providing a platform for negotiations and support for the investor during the negotiations — Organization of visits to the Republic of Belarus (development of a program of stay, assistance in obtaining a visa)
- Representing the interests of the investor negotiations with in officials government the on implementation of investment projects, as well as on improving business practices in the Republic of Belarus
- Post investment support

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