



SMR BALS SPECIAL STEEL FACTORY

01. SPECIAL STEEL FACTORY

MECANOEXPORTIMPORT S.A. is the main shareholder of S.C. SMR S.A. - Bals, manufacturer of special steel, runing gears, axels, wheels, wheelsets and bogies (former I.O.B. - Bals, built during 1965 - 1970). Its laboratories for analyses and tests (chemical, physical, x-rays, metallography, NDT) enable SMR S.A. company to manufacture high quality products complying with the requirments of the international market.



Offering a wide range of carbon steel and special steel ingots enables us to be a step ahead our competitors.

We strictly comply with the standards and specifications internationally known, requested by our endusers.

Our success is due to the continuous search for high quality of the carbon and special steels. The high quality is proved by our laboratories equipped with one of the most advanced testing facilities and a technical team of high qualification.

In addition, we are constantly working on new steel-making methods in order to comply with the international trends under continuous change.

We are known as being one of the top manufacturers in this field due to our capacity to supply high quality products made of special steels as requested by our customers.

In order to meet our customers' requirements, the steel production is based on the innovation spirit, competitive prices and a special quality.

Based upon these principles, we can say that each of our partners is a "winner" further to the cooperation with our company and our wish is to develop with each partner a long-term commercial relationship.

Our plant of special steels is equipped with specific equipment of international level including the 50 t electric-arc furnace, 50 t LF furnace, 50 t VD vacuum degassing installation, argon bottom blowing device and casting facilities, etc.

Electric power supply is provided through the Zonal Operator's distribution grid, by 4 overhead lines of 110 kV powering 2 direct connection substations with 4 transformers. Both the direct connection substations have a backup power line and are the propriety of SME Bals.



Annual production capacity is up to 80,000 tons of various qualities of steel ingots, such as : carbon steel, alloy steel, spring steel, chisel steel, die forging steel, high strength special steel, etc. Steel is supplied as ingots and the ingots are weighing up to 50 tons.

02. LEADLE FURNACE LF

LF steel refining installation enables accurate framing within the chemical composition of the manufactured steel, elimination of inclusions by argon blowing. The technological process is automatically performed by computer-controlled operating systems. The main purpose of LF treatment is to ensure that the molten steel has the proper temperature when the ladle is taken over at the vacuum secondary metallurgical equipment or in the casting area.

A dynamic process model has been developed for the calculation in actual time of the temperature during the treatment and for the control of energy input, so that the electric power will be calculated taking into account the temperature and batch undertaking moment for the next operation.



03. VD INSTALLATION

During the steel-making flow, the vacuum is meant to improve the steel quality by:

- removing the gaseous products of chemical reactions between Carbon and Oxygen and between Carbon and Sulfur
- removing nonmetallic inclusions in the steel
- removing oxygen, hydrogen and nitrogen



THE MAIN TYPES OF STEEL DEVELOPED IN FACTORY, ACCORDING SR EN 10020-1993:

NON-ALLOY STEEL

General purpose steel;
High-quality steel;
Special steel;

ALLOY STEEL

High-quality steel;
Special alloy steel;

STAINLESS STEEL

Carbon steel cast in pieces;
The ingots are casted with
a weight up to 50 t.

SC SMR SA Bals activity also includes manufacture of rolling stock subassemblies : axles, wheels, bogies, pig iron and steel making and casting, manufacture of forged goods, heat treatments. The whole manufacturing flow is completely integrated starting with pig iron and steel casting up to the final product.

All company activities are based upon high technical qualification, experience and professional staff and the quality assurance system is according to ISO 9001. The plant is fitted with equipment for cold and hot-metal working, blasting, protective gas welding.

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