

METAL 7 is located in Sept-Îles, the heartland of the Canadian Iron Ore Industry. This geographic location has allowed the company to focus its production towards this industry. METAL 7 has developed value-added products mainly oriented towards the Iron Ore Pellet Plants.

The company exports its products to more than twenty plants located all over the world. Its products are distinguished by their durability, their long life, and in most cases, by the production gains achieved by the users.

COATED PRODUCTS

Roller screen rolls and roller feeder rolls (including double deck)

METAL 7 has developed protective coatings for rollers that are used for screening iron ore pellets. The use of these rollers improves the efficiency of the screening units in increasing the quality of the pellets, production growth and lower maintenance costs.

Ceramic or metallic coated shaft sleeves

Abrasion-resistant coatings are applied on sleeves that are used on different types of shafts namely :

- shaft sleeves on slurry pumps;
- agitator shaft sleeves in the filtration unit; etc.

Mixers

METAL 7 offers coatings for mixer parts (Pekay-Mixers, Littleford, etc) to reduce wear and lessen the consumption of binding agent per ton of pellets.

Other protective coating applications

- Roller guides for steel cables;
- Stub shaft for filter barrel units;
- Pulleys and support rollers for conveyors;
- Wear plates, pressure bars and seal bars for indurating furnaces.

Several other coatings are currently in the works for indurating furnace parts including side walls and grate bars for Dravo/Lurgi type furnaces as well as for traveling grate section for Allis-Chalmers type furnaces.

Rebuilding worn parts

Coatings are widely used in the Mining Industry for rebuilding parts, including the reconditioning of mill pinion & shafts and the reclaiming of all sorts of babbitt bearings.



METAL 7's rollers are in use in more than 20 pellet plants.



High pressure atomization burner with protective coating.



Sleeves with various coatings.



The burners are installed on existing equipment.

INDUSTRIAL BURNERS

METAL 7 produces heavy fuel oil burners with high pressure atomization for indurating furnaces in Iron Ore Pellet Plants. These burners are directly installed on the existing furnace requiring only the supply of compressed air.

Characteristics of the burner include

- Elevated "Turn-down ratio";
- Great flame stability without the necessity of burner blocks;
- Increased longevity and low maintenance cost;
- The burner is made with an alloy that is resistant to high temperatures and the exterior tube is protected with a ceramic coating (thermal shielding).

Users state that these burners have contributed to reducing their furnaces' energy consumption and some observe improved physical properties of the pellets.

NUMERICAL ANALYSIS

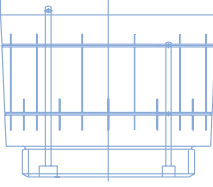
Computer tools are largely employed by METAL 7's R&D Department, we also do studies for other firms. These studies are mainly comprised of gas flow studies, calculations of heat transfer, as well as evaluations of mechanical constraints on modified parts. Numerical analysis offers many interesting opportunities to the Mining Industry and provides savings in time and money.

MACHINING

METAL 7 also produces many parts for the Mining Industry in its workshop, from the smallest precision piece to the most massive mining equipment.



Mixer wheels with a coating on the blades.



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