Handling of wire rod coils

GAUSS MAGNETI designs and manufactures since 1972 special deep field electromagnets for wire rod coils designed according to the customer's requirements for in-plant handling.

They are mainly used for the following applications:

- Single or multiple wire rod coils unloading from production (also for hot material up to 600°C);
- Loading and unloading of lorries, rail containers, ships;
- Storage in warehouse or depots.

These electromagnets are different from those for flat products because of their deeper magnetic field, able to better support non compact and irregular shaped loads.

Due to their design these magnets are suitable to operate at high temperature. In fact the special thermal insulation and the double bottom plate hamper that the heat from the load reaches the coil assuring then the highest electromagnets reliability.

Magnets can be executed for the simultaneous handling of one or more wire rod coils.

Magnets for wire rod coils could be handled in horizontal or vertical eye.











The main advantages are:

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 Operators can stay away from the hot material avoiding risk of accidents;

 Operators don't have to climb over the piles to slinging the load dramatically increasing the handling safety level and reducing the cost of the personnel;

 No damage to the material due to handling with mechanical lifting systems;

Faster handling speed with handling cost reduction;

 Better use of the storage areas with the increasing the available space.

The electromagnets are fed:

 From the mains through our electronic equipment with 4-quadrants digital converter allowing magnetic flux setting, counter-excitation for fast load release, coil temperature control by means of thermal probes or amperometric relays (important in high-temperature magnets),

 In case of power failure, from lead or Ni-Cd batteries with automatic switching and charging system and continuous control of the battery charge condition.

Electronic equipments are provided with excitation time monitoring to avoid coil overheating.

Tenths of magnetic systems for wire rod coils handling has been sold all over the world.







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