

ELECTRO LIFTING MAGNETS

Wire Coils



The SGM solution is a substantial advance over the "C" hook

SOME REFERENCES

DANIELI

posco

voestalpine

LUCCHINI GROUP
RS

DEACERO

BHUSHAN

جديد الراجحي
RAJHI STEEL

CMC Commercial Metals

NUCOR

SDI Steel Dynamics, Inc.

JASD INDUSTRIAL
CRANES

WA Ironwork Ltd.

Wire Coils



SAFETY

It is not necessary to have additional personnel present whilst loading/unloading lorries/wagons with wire coils.

PRODUCTIVITY

The handling operation of wire coils can be carried out by a single operator from the crane cabin or by remote control. This is not possible when using C-hooks as either an additional operator is needed to direct the crane operator on centring the wire coil or the crane operator himself needs to verify the centring operation. This leads to longer handling times and operators will work in close proximity to the load.

The use of an electromagnet results in important reductions of damages to the wire coils when compared to C-hooks as contact is limited to the wire coil upper surface and the appropriately shaped pole shoes of the magnet. Customer claims for quality problems are removed.

In case of requirement for high duty cycles and/or high temperatures, the use of anodized aluminium (aluminium strip chemically transformed on its outer surface into an insulation material able to withstand temperatures beyond the melting point of the aluminium itself) as an electrical conductor and specific resins provides the SGM magnets with outstanding heat dissipation capacities that makes them extremely performing.

The continuous monitoring of magnet internal temperature

by the magnet electronic control system allows operator to be informed of any critical thermal situation for the proper functioning and integrity of the magnets.

Thanks to the SGM voltage forcing device (a special device which consists in powering the magnet with an over-voltage for a few seconds so as to significantly shorten the time current takes to reach the rated value), the time magnet requires to grip and to release a coil is reduced to just a few seconds.

Because contact and approach to the coils is only limited to their upper part, storage space is optimized as it is not necessary to leave space between one coil and another such as is the case when using C-hooks. A greater quantity of wire coils can be stored and the space on the lorries and wagons can be optimized.

USER FRIENDLY

The electro-magnet is positioned on the upper surface of the wire coil and is energized in only a few seconds: fewer manoeuvres are therefore necessary with respect to the C-hook and fewer precautions are requested to avoid damaging the wire coils.

The extra deep magnetic field of the SGM magnets for lifting wire coils makes that the magnets can accommodate a large extent of coils that are not properly wound.

