

ELECTRO LIFTING MAGNETS

# Circular and Rectangular Hollow Sections



The handling and storage operations can be performed without dangerous oscillations of the system.

SOME REFERENCES



## Circular and Rectangular Hollow Sections

### SAFETY

With respect to the use of slings and chains, the handling of the bundles with electro-magnets can be carried out by a single operator from the crane cabin or from the ground at a safe distance from the load. In case of fully automated storage facilities, personnel is reduced to minimum and operate from control room.

Unlike with slings or chains, for which verification of wear is down to operators, magnet systems require little maintenance with the relative electronic controller continually monitoring the internal temperature of the magnets and the efficiency of the battery back-up system. No need for spacers between bundle/pack layers resulting in no need for operator intervention and a faster operating cycle.

### PRODUCTIVITY: MOVE MORE IN LESS TIME

Given that all of the handling operations are carried out from the crane cabin or from the ground by remote control, the speed of the handling operations is much faster than when operators use slings or chains. Lorries are loaded in a matter of minutes.

The use of magnets allows for the easy storage of bundles/packs in tidy stacks with no limit in man height or truck height and no need for walkways between stacks. This results in significant gain of storage volume (can be over 50% more).

SGM designs magnet systems that are extremely universal which means they can handle most of the different shapes of packs with little, if any, exception.

Magnet solutions are available for the handling of one or multiple bundles/packs at a time. When picking up multiple bundles/packs, the magnet control system allows for partial release of bundles/packs.

### USER FRIENDLY

The use of magnets versus slings or chains results in less damage to the finished products and claims for quality problems are reduced drastically.

SGM designs and manufactures magnetic equipment which best fit customers' needs: fixed spreader beams, manual or motorized extensible spreader beams, mobile magnets.

Each type of spreader beam can be fitted with the PANTOGRAPH function in order to adapt the position



of magnets to the width of the bundle/pack. It is thus possible to handle bundles/packs with a small diameter or with a large diameter by using the same spreader beam and magnet system.

A special SGM proprietary magnet design (patent pending) guarantees annulment of lateral dispersion of the magnetic flow. The result is that magnets do not interact with the columns or other bundles/packs next to the one being handled. Therefore, the withdrawal and warehousing of the bundle/pack takes place without swings of the complete magnetic system allowing for optimum positioning process and the possibility for the storage operations to be fully automated.

The SGM magnets designed for this application are very compact in height thus permitting the overall height of the magnetic system to be kept to a minimum.

The SGM electronic control system for feeding and managing the magnets is able to adjust the magnetic force to multiple levels and check the temperature of the magnets. Provision is also given for controlling motorised telescopic spreader beams and full operation of a 'pantograph' magnet beam.

The SGM electronic magnet control system can be easily integrated in an automated system.

