SGM
TECHNOLOGY AND PROXIMITY

ELECTRO LIFTING MAGNETS

Bundles of Rolled Structural Section and Rebar

Ferriere Valsabbia (Italy) reached a record of loading 180 lorries in 16 hours by using electro magnets. Each lorry carried 30 tons of bundles.

SOME REFERENCES

DANIELI · KONECRANES · posco · hadeed · Duferco · JINDAL STEEL & POWER · NLMK · IVA

GERDAU · VILLACERO · ArcelorMittal · MARCEGAGLIA · MANNI SIPRE STEEL ENGINEERING · RUBIERA SPECIAL STEEL

Bundles of Rolled Structural Section and Rebar

SGM extensibe spreader beams and EM Magnets supplied in 2008 to Arcelor Mittal in Poland for handling 6 to 24 metre long structurals in 6 ton packs, are still working with no repairs after 14 years full activity.

SAFETY

With respect to the use of slings and chains, the handling of bundles with electro-magnets is a lot faster and can be carried out by a single operator from the crane cabine or by remote control.
Unlike with slings and chains for which verification of wear is down to operators, magnet systems require little maintenance with the relative electronic controller continually monitorig the internal temperature of the magnets and the efficiency of the battery back-up system.
No need for spacers between bundle layers resulting in no need operator intervention and faster operating cycle. The use of magnets allows for the easy storage of bundles in tidy stacks with no limit in man height or truck height and no need for walkways between stacks. The result is better use of customer's storage volume.

PRODUCTIVITY: MOVE MORE IN LESS TIME

Given that all the handling operations are carried out from the crane cabin or from the ground by remote control, the speed of the handling operations (magnet bundle picking and releasing times) is much faster than when operators use slings or chains.
A lorry can be loaded in 5-15 minutes (depending on distance).
In 2007, AFV Beltrame (Italy) reached a record of loading 186 lorries in 16 hours by using electro-magnets.
Each lorry carried 30 tons of bundles.

USER FRIENDLY

SGM offers magnet spreader beams designed to make its magnetic systems extremely universal.
Extensible spreader beam solutions allow the handling of bundles of 6 metres to those of 12 or 18 metres in length with minimum footprint. This results in easier manoeuvres by the operator, particulary when loading/unloading lorries. For cases where the range of loads to be handled is extensive to the point that is necessary to dispose of two different magnetic systems, SGM has developed solutions where the crane operator can change the spreader beams with an automatic beam changing facility.
In order to facilitate the handling of a limited quantity of bundles with respect to the maximum capcity, the SGM magnet control systems are provided with partial quantity release options.
At AFV Beltrame a short beam with no. 2 electromagnets is used for handling bundles up to 6 metres in length whereas interchangeble long beam with no.4 electro-magnets is used for handling up to 14 metres in length.