

Specifically suited for automatic storage systems

Absolute safety

Resulting from the combination of the SGM electro-permanent magnet technology and the SGM safety monitoring device FMD

- The lifting force of the Electro-permanent magnets is independent from external energy sources = no accidental drops of the load as a result of power failure or cable interruption.

- The lifting force of the electro-permanent magnet is constant in time = no accidental drops of the load as a result of a reduction in magnet lifting force.



- Prior to every lift, the SGM patented Flux Measuring Device FMD checks the lifting

safety conditions under which the electro-permanent magnet is working (contact conditions between surface of the load and magnet polarities).



- No need for operator to get in contact with or stay by the coil. Magnet system can be operated from a safe distance using radio control, from crane cabin or from the control system of an automated storage fully integrated system.

- Technology of the electro-permanent magnet controllers facilitates the creation of safety redundancy.

- Special recommendation for the use of electro-permanent magnets is made for locations where sudden interruptions of main electrical power may happen inadvertently.



An alternative to mechanical tongs.

Productivity

- Optimisation of storage area on floor surface with possibility of using up to 90% with respect to the 40 - 60% achieved by mechanical tongs.
- Approach and contact with coil can be controlled a lot better than with mechanical tongs allowing for a drastic diminution of typical damages to coils provoked by tongs. Customers receive the exact coil lengths they request.
- The electro-permanent magnet requires just a few

seconds to grip and release a coil.

- Unlike electro-magnets, electro-permanent magnets do not generate heat when energized which means that they do not impose limitations on duty cycle.

- Electro-permanent magnet solutions well suit the increasingly widespread application of coil parks = simple interface, no magnet overheating thus allowing for possible long emergency handling times, defined coil pick-up and release times, operating times under normal conditions reduced to a minimum.



User friendly

- Unlike mechanical tongs, electro-permanent magnets are maintenance free as there is no heat generation inside the magnet and no moving mechanical parts.
- Unlike mechanical tongs, electro-permanent magnets do not present risks of oil leakages on coils.
- The electronic controllers for electro-permanent

magnets are technologically less sophisticated than the ones for electro-magnets.

This, combined with the fact that unlike electro-magnets, electro-permanent magnets do not generate heat when energised, makes the electro-permanent magnet technology easier to maintain.

No need for battery back-up.

- Electronic controllers able to work in local or remote mode with simple transfer of data and interface with other systems (diagnostics).



Notice

- Electro-permanent magnets can only apply to applications with limitations to coil wrapping thickness or to cold rolled coils.

Designed and manufactured according to European standards EN 13155.