

ELECTRO LIFTING MAGNETS

Mega scrap



By switching from a circular scrap magnet to an SGM Mega Scrap Magnet, an Italian customer has reduced wagon unloading times from 35 to 18 minutes.

SOME REFERENCES

 **DANIELI**

KONECRANES

Arvedi

Severstal

DEACERO


ArcelorMittal

 **PITTINI**

 **ABS**
ACCIAIERIE BERTOLI SAFAU
ABSOLUTE STEEL QUALITY

 **FERRIERE NORD**

 **GRUPO ACERERO**


MUKAND
Infinite resolve

Siderurgica Triestina



Mega scrap



PRODUCTIVITY

Resulting from the double magnetic circuit (SGM patent), with the Mega Scrap Magnet the scrap is distributed over all the magnetic surface in a more homogeneous way with respect to the traditional circular scrap magnet.

The Mega Scrap Magnet has a lifting capacity which is 60–70% more than the scrap handled by a traditional circular scrap magnet.

The more homogeneous pick-up of the scrap from wagons and lorries with the possibility of reaching the corners, as well as the absence of the “cone” effect of the scrap, leads to a reduction in the manoeuvres of the crane operator with respect to the use of a circular scrap magnet. The result is saving time and increasing production.

The two sketches below indicate how two circular scrap magnets unload scrap from a wagon with respect to the handling of scrap using one mega scrap magnet.

CUSTOMER TESTIMONIAL

Here is a comparison we have received from an Italian customer showing the difference in lifting capacities between an SGM circular scrap magnet weighing 16 tons and an SGM Mega scrap magnet weighing 19.5 tons.

By switching from a circular scrap magnet to an SGM Mega Scrap Magnet, the same Italian customer has reduced wagon unloading times from 35 to 20 minutes.

The loading time of 64-ton buckets has been reduced from 38 to 25 minutes. Since 2002, the customer has purchased 8 Mega Scrap Magnets.

Loading the bucket is more efficient because it is possible to enter the bucket with a 19-ton Mega Scrap Magnet and compact the scrap thus increasing its density.

When using Consteel technology, it is necessary to reach a

level of productivity which must remain constant in order to have savings in energy. By using the Mega Scrap Magnet for loading the belt feeding the Consteel, spillages of scrap are avoided and there is a more homogeneous distribution of the scrap over the whole surface of the belt. Heaps of material which are typical when using circular scrap magnets are no longer present.

Furthermore, the tipping function (electronic device able to cut the voltage to the magnets for a very brief period) permits the operator to dose the drop of the scrap onto the belt.

The octagonal shape of the Mega Scrap Magnet together with 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) permit the best possible dissipation of heat generated inside the magnet. The result is optimization of magnet duty cycle performance and longer life time.

Energizing and de-energizing times of just a few seconds using the forcing device.

The Mega Scrap Magnet is predisposed for the fitting of a radioactive detection device.

Top view
Two circular magnets



Side view
Two circular magnets



One mega scrap magnet



One mega scrap magnet

