
Transporting beam bundles in steel mills

A wide range of applications

TRUNINGER magnet systems are used in steel mills for many different transport tasks even in the early stages of the beam and profile production process.

Transporting layers of hot beam blanks with a temperature of up to 600°C using special hot magnets from TRUNINGER (see figure 1) is one example of such an application.



Figure 1: Transporting layers of hot semi-finished beams

Quick and efficient handling of beam bundles

Immediately after beams and profiles have been produced magnet systems can again be used for various material flow operations in the steel mill. Typical application areas for such systems are internal handling processes within the individual stages of production.

Robust spreader beam design and durable magnet construction are features of the magnet systems designed specifically for such applications.

At the end of the production process the beam bundles need to be moved quickly and safely into the dispatch storage area or loading zone in order to keep up with the continual flow of newly finished products.

Features of TRUNINGER design

- The design of the magnet spreader beams is adapted to the lengths of the material and the nature of the bundles. Components used here include fixed spreader beams with travelling magnets (see figure 2), two individual spreader beams or an active telescope (see figure 3).



Figure 2: Magnet spreader beam used to move beam bundles to the dispatch storage area

- The magnet controller enables the magnets to be moved automatically and to be positioned correctly according to different material lengths. This minimises any load deflection and guarantees safe transport.
- Magnets that can be rotated or moved to the side allow flexible adaptation to bundle width.



Figure 3: Dispatching and loading 3 bundles of beams in a single operation

- The magnets are fitted with adjustable poles that can adapt to the different contours of the material being carried (see figure 4).



Figure 4: Finger poles adapt automatically to the contours of the two H-profile bundles

Further advantages of lifting magnets

- Very long beams can be transported
- Thanks to individually controlled magnets or magnet groups practically any intermediate size can be picked up
- Different spreader beams can be used with the same magnet controller
- The entire magnet system can be designed with built-in redundancy, i.e. from the magnet controller via the power supply, right through to the magnet coils, the system incorporates fully redundant components
- Operation from the crane cabin allows high crane speeds
- No aisles required between stacks
- No wooden spacers needed between bundles

Your benefits

- Fewer accidents and increased safety
- Faster handling speed
- More compact storage
- Lower personnel costs