Plate transport in steel mills

Mill applications

In steel mills TRUNINGER magnet systems can be used straight after the production line to carry out various transport operations.

Particular features of magnet systems designed for such applications include robust spreader beam construction and resilient magnet design - also for use on hot material.

Figure 1: Magnet spreader beam in a steel mill

Areas of use

Typical areas of use for such systems are internal handling processes within the different stages of plate production.

Lifting plates out of the annealing furnaces.

Continuous, reliable removal of plates from a non-stop production line.

Plus handling operations in the dispatch area.

Advantages of magnet systems

- Flexible spreader beam design allows handling of very long plates as well as a wide range of different lengths
- Individual switching of magnets or magnet groups allows practically any intermediate size to be safely handled
- Hot magnets enable handling of plates at temperatures of up to 600°C
- Different spreader beams can be used with the same magnet controller

- Easy operation of the system via the crane cabin enables high crane speeds
- No wooden spacers needed between layers of material

Your benefits

- One system for all formats – one size fits all!
- No degradation of material during transport caused by mechanical lifting devices
- Fewer accidents and increased safety
- Faster handling speed
- More compact storage

Figure 2: Active telescope with quick change device

Features of TRUNINGER design

- Magnet spreader beams for use in steel mills have an especially robust design. The required beam is always designed specifically for the target application.
- We use both spreader beams with fixed magnet distances (see figure 1) and extremely compact active telescopes (see figure 2).
- 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.