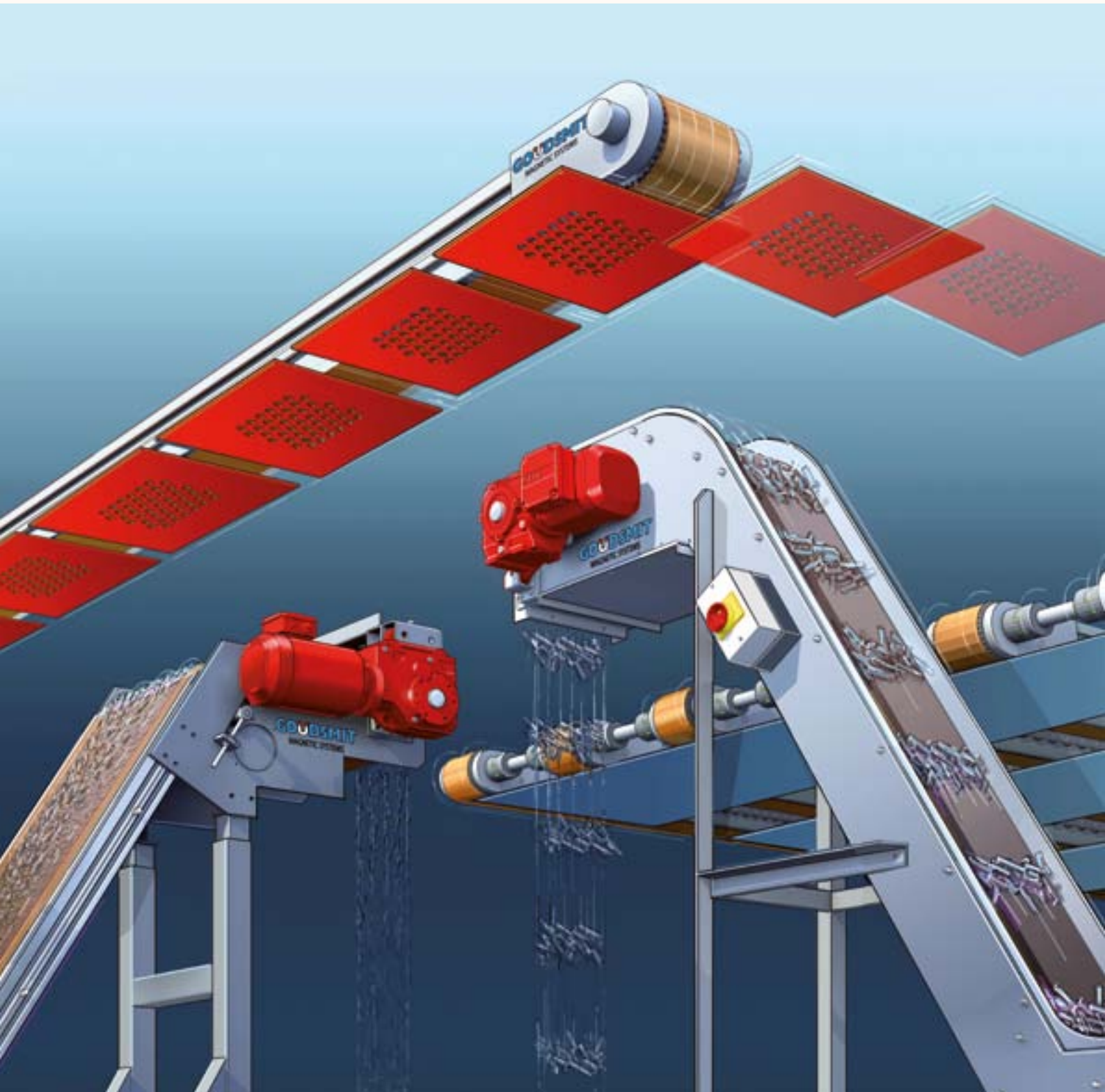


# Magnetic conveyors for steel handling



# Goudsmit slide bed conveyors

Goudsmit slide bed conveyors are used in the metal and sheet metal processing industry. They offer the right solution for the smooth transport of steel parts such as: punching waste – pressing scrap – trim waste – ball bearings – nails – turning, milling and drilling swarf and other steel parts.

Slide bed conveyors have no external moving parts such as plastic conveyor belts. This makes them especially well-suited for transporting sharp steel parts.

## Operation

A stationary stainless steel slide plate is mounted above magnet systems mounted at intervals along a chain. This chain is driven by a gear reduction motor that sets the magnet systems in motion. The magnets move the steel parts along the slide plate and smoothly carry them to the discharge end.

## Advantages over belt transport

- Steep transport angle of 60°
- Requires minimal installation space
- Contains no external rotating parts

## Options

For applications involving very abrasive materials the slide bed conveyor is available with a mangalloy slide plate. It is also suitable for oiled products.

Goudsmit delivers magnetic slide conveyors in any desired dimensions, according to your specifications.

## Characteristics

- Built with strong Neoflux® (NdFeB) magnets
- Max. capacity for small sheets: 14–42 kg/min
- Conveying widths of 200 to 575 mm.
- Available with mangalloy slide plate for abrasive materials
- Suitable for oiled products
- Plate is wear-resistant

3 types of slide bed conveyors:

- Swan neck
- Big neck – for discharge of long parts
- Flatbed – simple installation

For dimensions, please refer to the website.

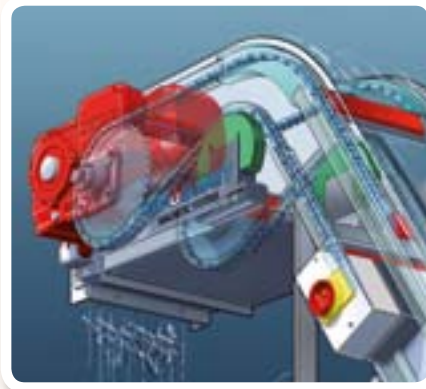
[www.goudsmit-magnetics.nl](http://www.goudsmit-magnetics.nl)



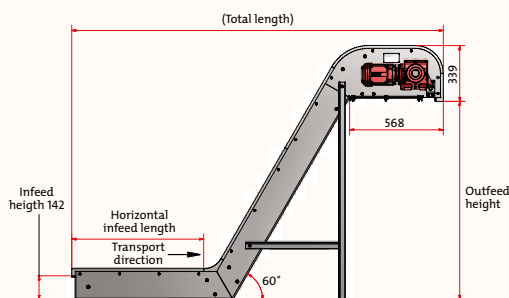
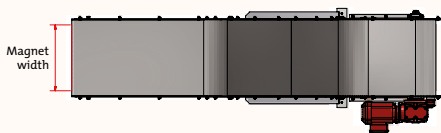
Slide bed conveyor mounted under a stamping machine to carry off the pressing scrap.



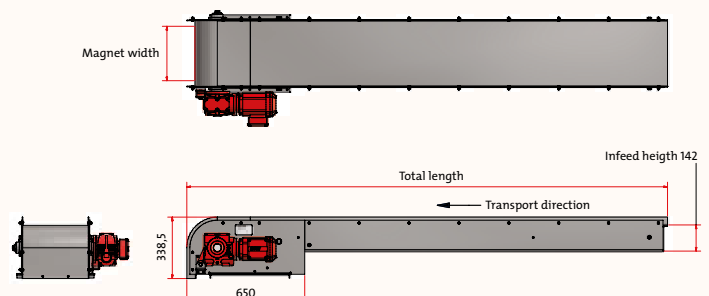
Combination flat bed & swan neck conveyor for discharge of punched parts.



Inspection hatch with clearly visible chain tensioner and magnet block (red).



Swanneck conveyor.



Flat bed conveyor.

## Aligners

Aligners align ferromagnetic parts in the desired position, for compact packing.

Suitable for: nails, bolts and long ferromagnetic parts.

Application: in automated packing lines

Maximum capacity: suitable for packages up to 35 kg

Switching: fully automatic, via an electric controller

For metered infeed we suggest combining an aligner with a nail feed conveyor (see photo at right).



## Timing belts

Timing belts feed hanging or lying steel sheets in and out of the press quickly and precisely. Timing belts are fitted with permanent magnets and electromagnets. When only transport is required we just use permanent magnets. In combination with a robot Goudsmit uses electromagnets that are switched off the moment the steel plates are picked up by a robot arm.



### Specifications:

- The infeed and discharge occur with a maximum acceleration of 6 m/s<sup>2</sup>
- The belt is suited for a sheet thickness of 0.7 - 3 mm
- Maximum speed: Approx. 3 m/s
- Standard belts are delivered with protruding shaft, without drive unit
- Slide plate made of AISI1304 & extruded aluminium

- The extruded aluminium profile provides a support/mounting surface for any sensors
- Belt type: Angst & Pfister, type BATK with stainless steel tension member and special teeth
- Belt width: 163 mm x height: 110 mm (width is outer dimension of the pulley plate)
- Roller conveyers support the plates to prevent sagging

- Length: variable from 1000 to 6000 mm, according to customer specifications

For more specifications, please refer to our website: [www.goudsmit-magnetics.nl](http://www.goudsmit-magnetics.nl)

Other magnet systems Goudsmit manufactures for metal handling are shown below.



### Magnetic grippers

Magnetic grippers are suitable for the automated pick-up, placement or positioning of iron, steel or other ferromagnetic objects having a limited weight. All these products can be switched on and off and have a threaded-hole mounting interface for attachment to a robot.



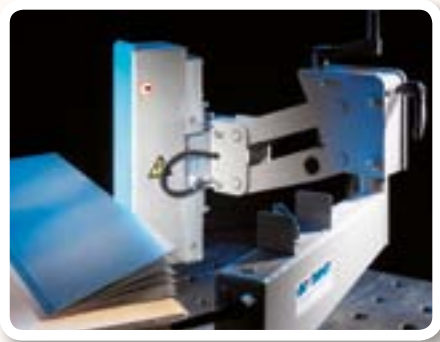
### Hand-held lifting magnets

These lifting magnets are suitable for lifting or holding steel products. Activation is done manually. This enables you to lift, process or rotate them without the use of energy. We achieve this through the use of a patented technology which involves rotating the magnets relative to each other. This makes the magnet an on/off switch. The large holding power and lack of a magnetic field when switched off make this lifting magnet suitable for many applications.



### Demagnetization systems

Magnetically conductive metals, such as steel products and tools, which are processed or come into contact with magnets can easily become magnetized. Depending on the type of metal (or alloy), this magnetism may be retained in the object. Even non-magnetically-conductive materials, such as stainless steel, can become magnetically conductive after processes like welding, grinding, bending or machining. Demagnetization systems are therefore often utilized during and/or after such processes. They are also used just prior to packing.



### Sheet separators

Magnetic sheet separators separate sticky or oiled steel sheets and prevent more than one from being picked up at the same time. This keeps the production process running much more smoothly. The permanent magnetic force does not degrade and is guaranteed for decades. No expensive compressed air is needed for blowing the steel sheets loose.

**Suitable for:** separating ferromagnetic sheets up to 5 mm thick, of nearly any shape, length or width, including round and asymmetrical shapes.

**Switching:** both manual and automatic, with a pneumatic controller for automated processes.



### Pneumatically switched

The hand-held lifting magnet described above is also available in a pneumatically operated version. This makes it particularly well suited for automated processes.



### Magnet status sensor

The magnet status sensor recently developed by Goudsmit Magnetics monitors the operating status of magnetic grippers, fulfilling the now even more stringent production requirements in sheet processing industries.

