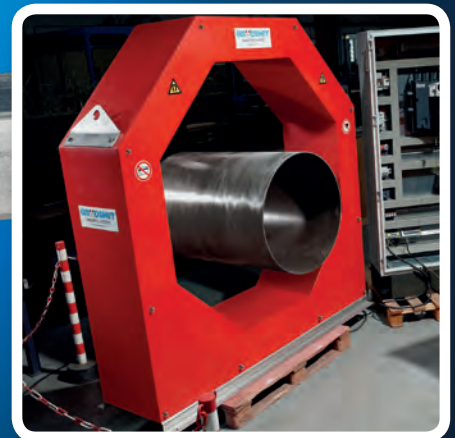


# Demagnetization & Seperation



# Demagnetization

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. Therefore we make extensive use of demagnetization during and/or after metalworking processes. For example, just before packaging.

Undesirable magnetism can cause many problems, such as:

- products sticking together in a mould
- a rough surface after galvanization
- difficulty performing electric welding
- welds that only penetrate on one side
- extra wear of bearings
- metal chips that stick to parts or tools
- detection errors by actuators and magnetic sensors
- adherence of extra dirt and dust.

Goudsmit's demagnetization systems remove undesirable magnetism. In addition to supplying these systems, we also demagnetize your products on location or at our company in Waalre.



## Demagnetization tunnels

We distinguish between demagnetization tunnels for low-frequency and high-frequency demagnetization. High-frequency tunnels can demagnetize normal steel at a frequency of 50/60 Hz. The tunnel can be connected directly to mains power. Low-frequency tunnels require a special control box. To configure this correctly, Goudsmit has developed its own human interface, in the form of a touchscreen. Using this panel you can easily choose from among the pre-programmed settings. Just selecting several product-specific data items will take you to the right program.

For automated demagnetization processes, demagnetization tunnels are available in combination with a conveyor belt or roller conveyor on request.



### Demagnetization tunnels with rectangular passage

Intended for long, thin-walled products and materials with an irregular surface.

For products with a wall thickness of up to 10 mm or solid products up to 20 mm thick.

Examples:

- drill bits and other machine tools
- pipes
- sprockets and gears
- bolts, nuts and other fasteners
- steel components in the automotive industry.



### Demagnetization tunnels with round passage

Suitable for installation in a pipe system and for the demagnetization of round, thin-walled objects (up to 10 mm wall thickness).

Examples:

- round, thin-walled objects, such as pipes
- links in push belts
- balls of ball bearings
- steel wool in air filter systems
- steel blasting grit for blast cleaning.



### Low-frequency demagnetization tunnels

Low-frequency demagnetization tunnels have high penetration power and are therefore suitable for thick-walled or solid objects.

Suitable for demagnetizing products up to 500 mm thick (applies to untreated steel and a passage size of up to approximately 1500 mm). Examples:

- thick or solid products, such as rails and shafts
- hardened steel products such as dies and moulds
- products that are packed more than one to a box
- thick-walled pipes up to 56" (1422 mm)
- cemented carbide tools.



### Demagnetizing tables

Demagnetizing tables are suitable for demagnetizing flat or single-sided magnetic products up to 10 mm thick. They are intended for locations where there is too little space to build-in a tunnel, or for installation under an existing conveyor belt.

For automated demagnetization processes, demagnetization tables are available in combination with a conveyor belt or roller conveyor on request. Specially developed for:

- grinding shops (wet grinding)
- galvanizing companies
- machine building
- packaging machines.



### Demagnetization bars

For the demagnetization of tools and machine parts in difficult-to-reach places. For example, in workshops, tool-making shops, machine building and for watch repairs.



### Hand-held demagnetization unit with round passage

For the demagnetization of tools and small materials. For example, drill bits and chisels, tools and small parts. Application: drill bits, chisels, tools and small parts.

### Demagnetization on location

Goudsmit can perform demagnetization of complete and/or very large products for you, at our location or yours. Even if you only require occasional demagnetization this option can save you space and money. We are happy to provide you with an offer based on the dimensions, type of material and quantity. Examples:

- demagnetization of pipelines (incl. oil pipelines)
- demagnetizing of large shafts, railway rails or constructions
- the creation of a counterfield for built-in constructions so that welding can be performed.

A mobile demagnetization system specially developed for the location even goes a step further: the system is completely designed for customer use, without intervention of a Goudsmit specialist. The demagnetization system is automatically configured for use by simply answering a number of questions on the display.



## Divisible /modular demagnetization tunnel

Modular demagnetization tunnel, specially intended for use in machines for deburring, grinding and rounding off metal parts. A big advantage of these modular tunnels is the endless loop conveyor belt is easily replaceable. Due to its small size, this tunnel can also be easily built into, say, a deburring machine.



*Low-frequency demagnetization tunnel for the demagnetization of saw blades.*

*Products you may also be interested in: magnetic metal conveyors, nail aligners and timing belts. See the brochure on [www.goudsmitmagnets.com](http://www.goudsmitmagnets.com) or request one.*



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