VE + DN

Customized, **high-performance** demagnetizers

- Extremely high field strengths as a result of especially designed and customized coils with standard power module
- The demagnetizing solution is tailored optimally for each particular application with the aim of increased efficiency
- For demanding demagnetization tasks, for which process-reliable adherence to the limit values relating to residual magnetism is a must
- Productive demagnetization of bulk material or heavy individual parts
- In traditional coils, electric current is converted into magnetic field strength with a very unfavorable reactive current ratio. The drawn energy is nearly completely converted into active power in the VE series

Swiss Made

Maurer Magnetic
Magnetically pure

In state-of-the-art industrial production processes, the standard requirements for magnetism limit values on ferromagnetic components are between 2 A/cm and 4 A/cm, such as for precision cleaning or electron beam welding, in which smooth processes cannot be reached without the lowest magnetism values. It is essential for a trouble-free production chain that consideration is also given to magnetism. The high field strengths of VE allow a near complete demagnetization of components as process preparation, because they no longer re-magnetize themselves on their own.

In 2001, Maurer Magnetic developed the Maurer Degaussing® demagnetizing process, for which a patent was applied for. With our many years of experience and the expertise we have acquired over time, our technology has been continuously enhanced, while our new relevant patents supplement it. Our in-house production also allows us to implement customer demands quickly and unimpeded, while ensuring our quality standards at the same time.

Applications
Productively removing magnetism

VE with integrated light barrier for pulse triggering. This allows the system to work autonomously

Demagnetizing of assembled roller bearings with pulse technology and high field strength

Increased productivity with the ability to demagnetize many parts at once. Bulk material, transport containers with content or even complex individual parts are demagnetized with a pulse

The VE+DN demagnetizer is designed specifically to be integrated into highly automated production processes in an industrial environment. The machine can be actuated via the integrated interface and all relevant process parameters can be read. The high demagnetizing performance makes this device the leading-edge demagnetizer in production applications.

The VE coil module is ideally sized to match the customer-specific application in terms of its performance and the dimensions of the active opening. The Maurer Degaussing® process and the effective air cooling provide for a high clock rate and productivity. The housing is made of electrically robust, fully insulating material.

Ideally tailor-made demagnetizing solution
The demagnetization parameters are determined in preliminary testing or based on experience from similar scenarios. The demagnetization solution is implemented promptly with optimally designed power and coil modules.

Range of parts
- Demanding components with the high demagnetization requirements
- Filled laundry baskets for improved cleanliness
- Tools and small parts in bulk
- Assemblies consisting of a variety of materials
- Built-in carbide materials

Cutting-edge technology

For best possible demagnetizing

This power module includes the power, interface and control elements of the demagnetizing system. The connection cables between the coil module and the power module are pluggable. By default, the power module is configured in pulse mode; continuous operation is also available as an option.

Power Module DN750–1850

- Patented pulse demagnetizer, guaranteeing highest possible material demagnetization
- Can be easily connected into automated production lines thanks to 24 V I/O interface
- Interface for a trigger sensor for autonomous pulse triggering comes standard
- Two power module types available
- Operating status lights
- Intuitive, reliable operation
- Demagnetization in pulse mode
- Robust design suitable for industrial applications
- Versatile system
- Reactive current compensated

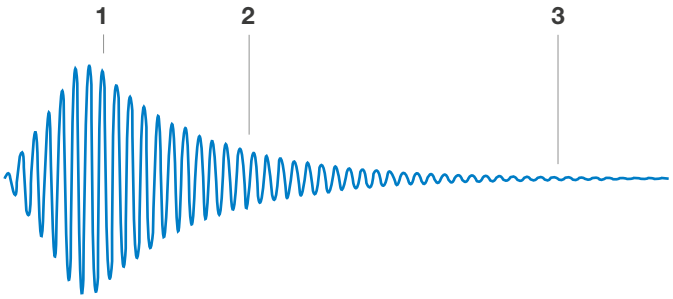
MAURER DEGAUSSING®

The power module is also available for integration into existing switch cabinets. Please refer to the “DN-Integration” brochure for more information.

Maurer Degaussing® technology

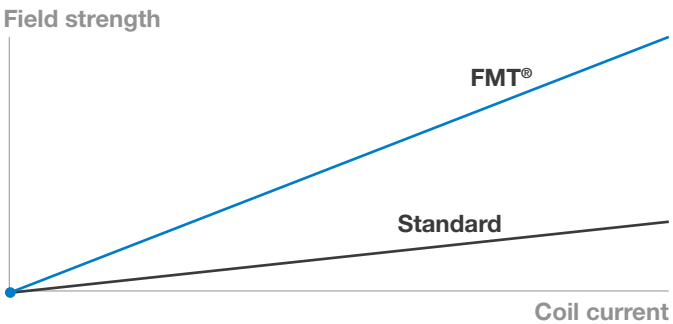
The Maurer Degaussing® process works with pulse demagnetization patented by Maurer. The intensity, amount and precision of the polarity reversals, and the frequency are implemented in an optimum manner by the Maurer-Degaussing® procedure. This package enables demagnetisation that cannot be performed with conventional methods:

1. Short-term high magnetic field strength
2. High number of monotonically decreasing vibrations
3. Run-out exactly to zero magnetic field



FMT® – Field Multiplicator Technology

The efficiency of the demagnetising process is implemented directly and used to the full with this technology. The electrical switching used to generate the high field multiplies the current that is fed in and therefore provides high demagnetisation field power. The FMT® (Field Multiplicator Technology) solves this problem and enables higher field strengths while keeping the electrical connection power lower at the same time.



Technical data*

Coil module		VE
Customer-specific external dimensions (mm)	W H D	max. 1230 max. 1430 max. 1100
Customer-specific active opening (mm)	W H D	max. 1000 max. 1000 max. 1000
Weight	kg	Typically 80 to 400
Degree of protection IP		20
Maximum field strength [1]	kA/m	Typically 50 to 360, inversely proportional to the active opening
Cycle time		Typically 2 to 6 pulse/min
Demagnetizing frequency		Designed customer-specific

Power module		DN750	DN1100	DN1850
External dimensions (mm)	W H D	600 600 350		
Power supply	VAC Hz	3PE 380–480 50/60		
Weight	kg	45		50
Degree of protection IP		51		
Peak current [1,2]	A	36	52	80
Internal fuse	A	16	20	
Suitability for automation		Yes		

Options

- Base
- Process monitoring
- Safety function STO (Safe Torque Off)
- Power selection (3 levels)
- Shielding chamber
- Power module as an integration variant
- Fieldbus coupler WAGO or Beckhoff
- UL approved material

Delivery includes

- VE + DN (optional base)

[1] effective value lower by a factor of 1.41, [2] In continuous operation it is 1.5 times lower
*All informations are without guarantee

CE

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