

## CT-U + DN

High-performance industrial demagnetizing coils



- > With an almost 4–16 times higher system performance as compared to mains-operated coils
- > The standard coil program offers a cost-effective solution to a variety of applications
- > Short cycle times due to factory-configured demagnetization pulse parameters, adapted to the range of parts
- > For industrial applications for which the magnetic field strength of a conventional continuous coil is not sufficient
- > Depending on the application, the demagnetizing coils are operated either in a pulse or in continuous process
- > The patented CFT® keeps the magnetic field consistently high, irrespective of the coil's degree of filling



# Maurer Magnetic

## Magnetically pure

The classic tunnel demagnetizers have been in use more or less successfully in the industry for several decades. For the most part, their use and application options are fairly well known. Modern materials require increasingly higher demagnetizing field strengths in order to remove any residual magnetism from them. Maurer Magnetic has brought the classic tunnel demagnetizers to a whole new level by adding the patented CFT® (Constant Field Technology). As compared to traditionally mains-operated coils, this increases the demagnetizing performance by a multiplier of 4 to 16. This opens up to entirely new possibilities: For example, heavier workpieces or several parts can be successfully demagnetized at the same time. Thanks to the control interfaces prepared in advance, integration into automated sequences is

extremely easy. This system can replace any demagnetizing coils already in use, which tend to show a decreased performance, and at the same place with the aim of meeting current and future requirements.

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

Can be used for versatile applications in automation



The system is operated at a safe distance to the coil in order to avoid any impermissible field exposure

The magnetically enhanced demagnetizing coils are either used in continuous operation or in pulse mode, making them suitable for both consistent and inconsistent material flow.

### Universal in manual mode

Components are placed in the coil and are generally demagnetized with a pulse; magnetically resilient parts can also be treated with several pulses and by sliding an elongated component. When used in an automated production line, the device is extremely space-saving, because it does not require a run-off area, such as a conveyor belt or a roller conveyor.

### Coil Module CT-U

The CT-U coil module is completely cast with insulating material. The coils are fitted with temperature sensors to prevent overheating. The coil module is connected to the power module with a 3m long power cable; upon customer request, it can be adjusted.

### What demagnetizing with CT-U + DN means for you:

- > Process-reliable demagnetizing
- > Multiple parts treatment
- > Energy-saving process
- > Fast process
- > Space-saving setup
- > Process-reliable fulfillment of customer's residual magnetism limits

### Range of parts

- > Larger parts with walls several centimeters in thickness
- > Rods/tubes/profiles
- > Bulk goods
- > Individual and small parts



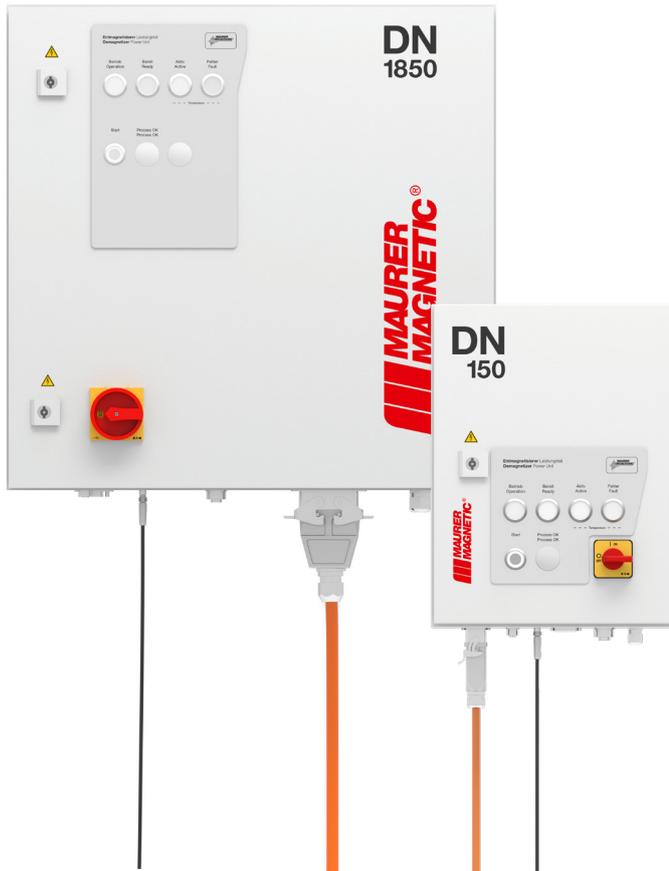
The coils even demagnetize reliably at maximum degrees of filling



Suitable for individual lower alloyed parts

# 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 DN150–1850

- > 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
- > Four power module types available
- > Operating status lights
- > Intuitive, reliable operation
- > Demagnetization in pulse mode
- > Robust design suitable for industrial applications
- > Versatile system

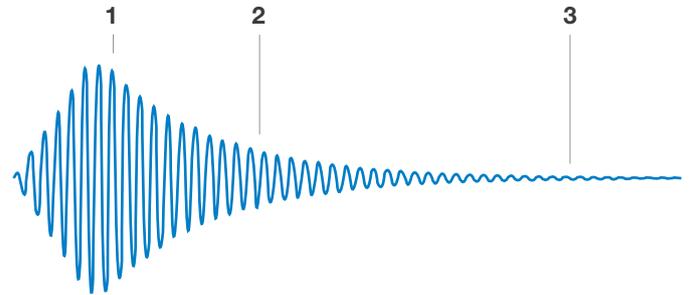


The power module is also available for integration into existing switch cabinets. Please refer to the “DN-Integration” brochure for more information.

## Maurer Degaussing® technology

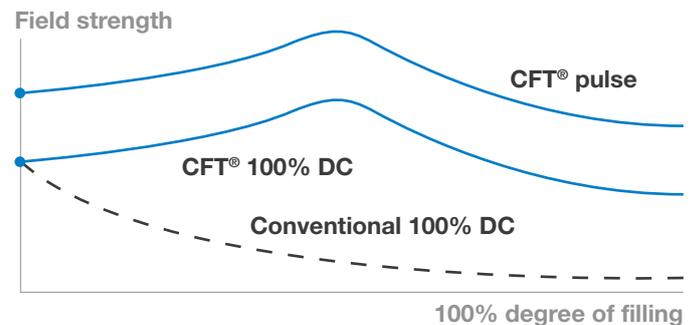
The Maurer Degaussing® process works with pulse demagnetization patented by Maurer. The intensity, amount and precision of the polarity reversals, and the frequency are implemented in an optimum manner by the Maurer-Degaussing® procedure. This package enables demagnetisation that cannot be performed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



## CFT® – Constant Field Technology

The patented CFT® (Constant Field Technology) keeps the magnetic field consistently high at the productive frequency regardless of the coil fill level. The power is increased further in pulse mode.



## Technical data\*

Coil module		CT1-U	CT2-U	CT3-U	CT4-U	CT5-U	CT6-U	CT7-U	CT8-U
External dimensions <sup>1</sup> (mm)	W	456	566	561	702	711	676	854	1051
	H	282	315	435	385	535	555	735	735
	D	170	185	200	250	250	250	367	360
Active opening (mm)	W	150	260	250	400	400	400	550	750
	H	100	130	250	200	350	400	550	550
	D	120	135	150	200	200	220	337	330
Weight	kg	41	62	84	110	120	130	190	230
Degree of protection IP		52							
Maximum field strength <sup>2</sup>	kA/m	93	66	48	47	32	30	20	16
Cycle time		1 pulse / 10s							
Demagnetizing frequency		Designed customer-specific							

Power module		DN 150	DN 750	DN 1100	DN 1850
External dimensions (mm)	W	300	600		
	H	400	600		
	D	210	350		
Power supply		1NPE	3PE		
	VAC	200–240	380–480		
	Hz	50/60	50/60		
Weight	kg	12	45		50
Degree of protection IP		51			
Peak current <sup>2</sup>	A	20 <sup>3</sup>	36 <sup>4</sup>	52 <sup>4</sup>	80 <sup>4</sup>
Internal fuse	A	10	20		
Suitability for automation		Yes			

### Options

- > Base
- > Process monitoring
- > Safety function STO (Safe Torque Off), only for DN750–1850
- > Power selection (3 levels), only for DN750–1850
- > Shielding chamber
- > Power module as an integration variant, only for DN750–1850
- > Fieldbus coupler WAGO or Beckhoff, only for DN750–1850
- > UL approved material

### Delivery includes

- > CT 1-U + DN 150
- > CT-U + DN 750–1850 (base optional)



<sup>1</sup> Approximations, <sup>2</sup> Effective value lower by a factor of 1.41, <sup>3</sup> In continuous operation it is 2 times lower, <sup>4</sup> In continuous operation it is 1.5 times lower  
\*All informations are without guarantee

