

Demagnetization prior to parts cleaning MM DN + SE



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CFT[®] Constant-Field-Technology[®]



Perfect demagnetization for perfect cleanliness

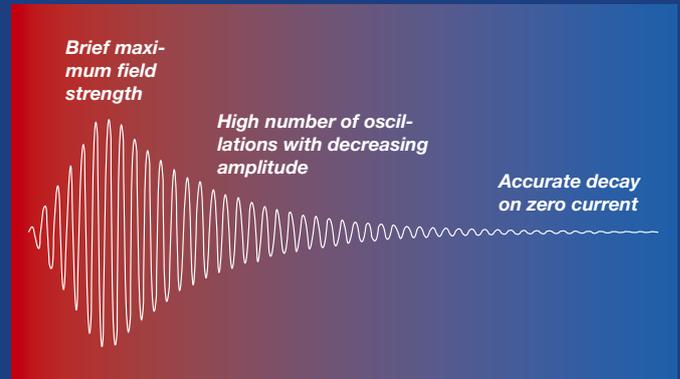
Maurer-Degaussing®-Technology



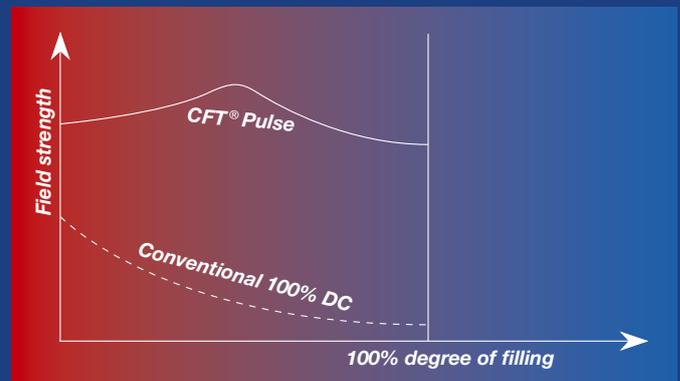
Manufacturers of cleaning machines guarantee achieving the specified residual dirt limits of ferromagnetic parts, only up to a defined residual magnetism level. This requires a powerful and stable demagnetizing process. Especially for this OEM-segment, Maurer Magnetic AG offers the new MM DN + SE demagnetizer. The power is designed to meet current requirements defined by the fine- and ultra-fine cleaning machine manufacturers (residual magnetism <math>< 2\text{A/cm}</math> at a Hall effect zone distance of ~2mm to the surface of the part).

Features

- Covering standard cleaning baskets by a large diversity of coil dimensions.
- Economical performance to solve today's requirements.
- Suitable for bulk material or oriented parts.
- Usable for horizontal and for vertical field direction through the baskets. The case specific optimal solution depends on the orientation of the parts in the basket.
- Reduced dimensions and integration costs due to pulse demagnetization process.



Intensity, number, and precision in the process of decreasing pole reversals, and the choice of the frequency. These elements are optimally set with our demagnetizing devices.



The CFT® Constant Field Technology® keeps the magnetic field consistently up, regardless of the filling degree of the coil. More power available with pulse mode. CFT® patent granted for.



Power module

The power module includes the power electronics, the interfaces and the control processor of the demagnetizing system. The cables connecting the demagnetizing coil and the power module are pluggable.

Power module MM DN1100... 1850

- Optimal adjustment of the demagnetizing frequency
- Demagnetization of parts at fixed position by means of proprietary demagnetizing pulse (patent granted for)
- Easy integration in automated production lines through control interface 24 V I/O
- Interface to light barrier for automatic triggering of pulse
- Low power consumption due to power factor correction
- Indicator lamps for easy process monitoring

Demagnetization prior to industrial cleaning processes

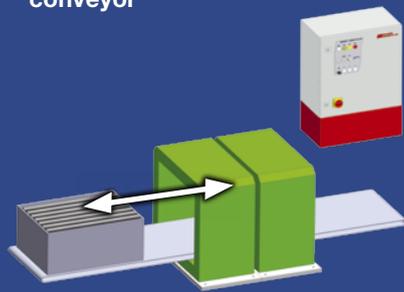
Residual magnetism in a part causes attractive forces on ferromagnetic dirt particles. The particles stick on the surface of the part. This magnetic forces increase near to the surface, therefore even modern cleaning systems can't remove the dirt particles completely from the part. A safe process can only be reached by a proper demagnetization of the parts prior to the cleaning system.

Demagnetizing with MM DN + SE offers you:

- No sticking of ferromagnetical particles
- Cleanliness after the cleaning process
- Low energy consumption do to pulse demagnetization

Handling

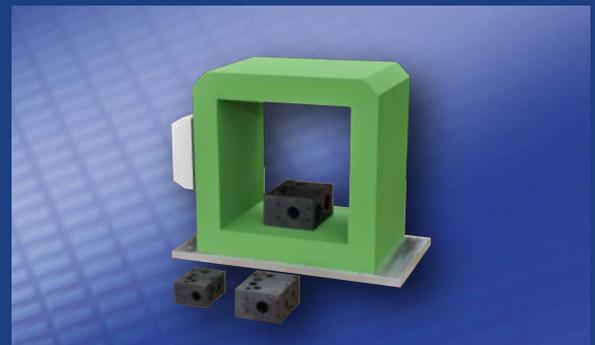
- Simple integration of the demagnetizer into the automation system can be realized by the manufacturer of the cleaning system.
- Smaller systems are directly integrated on the infeed conveyor



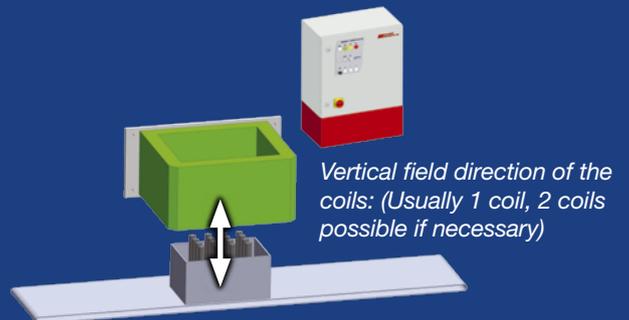
Horizontal field direction of the coils:
(Usually 2 coils)



Suitable for bulk material or oriented parts



Also usable for larger parts with several inches of wall thickness



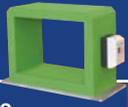
Vertical field direction of the coils: (Usually 1 coil, 2 coils possible if necessary)



Demagnetizing coil SE

The demagnetization coils of the SE product line are specially designed for the requirements of modern cleaning systems.

If necessary, a second coil can be used. This configuration with 2 coils is called Helmholtz-Coil. With the Helmholtz-configuration the system generates enough field volume to demagnetize even large washing baskets.



Coil module	MM SE3	MM SE4	MM SE5	MM SE6	MM SE7	MM SE8	MM SE9	MM SE10	MM SE11
Dimensions W × H × T [mm]	450 × 370 × 250	450 × 470 × 250	540 × 420 × 250	550 × 570 × 250	620 × 420 × 250	760 × 470 × 250	760 × 620 × 250	910 × 470 × 250	910 × 670 × 250
Active opening W × H × T [mm]	250 × 250 × 210	250 × 350 × 210	350 × 300 × 210	350 × 450 × 210	420 × 300 × 210	560 × 350 × 210	560 × 500 × 210	710 × 350 × 210	710 × 550 × 210
Maximum field peak	50 kA/m	40 kA/m	55 kA/m	45 kA/m	50 kA/m	40 kA/m	35 kA/m	35 kA/m	30 kA/m
Weight	36 kg	41 kg	52 kg	58 kg	55 kg	65 kg	70 kg	68 kg	71 kg

Maximum pulse rate by maximum field strength: 1 Puls / 40 s Frequency of demagnetization: 8–20 Hz Protection class IP: 54 Configuration: screwed (with default factory setting)



Coil module in Helmholtz configuration	MM SE33	MM SE44	MM SE55	MM SE66	MM SE77	MM SE88	MM SE99	MM SE1010	MM SE1111
Dimensions W × H × T [mm]	450 × 370 × 500	450 × 470 × 500	540 × 420 × 500	550 × 570 × 500–540	620 × 420 × 500–540	760 × 470 × 500–540	760 × 620 × 500–540	910 × 470 × 500–540	910 × 670 × 500–540
Active opening W × H × T [mm]	250 × 250 × 460	250 × 350 × 460	350 × 300 × 460–500	350 × 450 × 460–500	420 × 300 × 460–600	560 × 350 × 460–650	560 × 500 × 460–650	710 × 350 × 460–500	710 × 550 × 460–500
Maximum field peak	55 kA/m	45 kA/m	60 kA/m	50 kA/m	50 kA/m	40 kA/m	40 kA/m	45 kA/m	40 kA/m
Weight	72 kg	82 kg	104 kg	116 kg	110 kg	130 kg	140 kg	136 kg	142 kg

Maximum pulse rate by maximum field strength: 1 Puls / 40 s Frequency of demagnetization: 8–20 Hz Protection class IP: 54 Configuration: screwed (with default factory setting)



Power module	MM DN1100 SE3, SE4, SE33, SE44	MM DN1850 SE5, SE6, SE7, SE8, SE9, SE10, SE11, SE55, SE66, SE77, SE88, SE99, SE1010, SE1111
Dimensions W × H × T [mm]	600 × 600 × 350	600 × 600 × 350
Connection	3AC 380 – 480V, 50/60Hz, (N)PE	3AC 380 – 480V, 50/60Hz, (N)PE
Power supply rating	16 A	20 A
Weight	45 kg	50 kg
Protection class IP	41	41
Process monitoring unit	available	available

Further options on request

Magnetizing & Demagnetizing Technology

