Demagnetization prior to parts cleaning
MM DN + SE

CFT® Constant-Field-Technology®
Perfect demagnetization for perfect cleanliness

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 < 2A/cm 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.

Maurer-Degaussing®-Technology

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

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.
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

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.
### Magnetizing & Demagnetizing Technology

Coil module

<table>
<thead>
<tr>
<th>Dimensions W × H × T [mm]</th>
<th>MM SE3</th>
<th>MM SE4</th>
<th>MM SE5</th>
<th>MM SE6</th>
<th>MM SE7</th>
<th>MM SE8</th>
<th>MM SE9</th>
<th>MM SE10</th>
<th>MM SE11</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>450 × 370 × 250</td>
<td>450 × 470 × 250</td>
<td>540 × 420 × 250</td>
<td>550 × 570 × 250</td>
<td>620 × 420 × 250</td>
<td>760 × 470 × 250</td>
<td>760 × 620 × 250</td>
<td>910 × 470 × 250</td>
<td>910 × 670 × 250</td>
</tr>
<tr>
<td>Maximum field peak</td>
<td>50 kA/m</td>
<td>40 kA/m</td>
<td>55 kA/m</td>
<td>45 kA/m</td>
<td>50 kA/m</td>
<td>40 kA/m</td>
<td>35 kA/m</td>
<td>35 kA/m</td>
<td>30 kA/m</td>
</tr>
<tr>
<td>Weight</td>
<td>36 kg</td>
<td>41 kg</td>
<td>52 kg</td>
<td>58 kg</td>
<td>55 kg</td>
<td>65 kg</td>
<td>70 kg</td>
<td>68 kg</td>
<td>71 kg</td>
</tr>
</tbody>
</table>

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

### Power module

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>3AC 380–480V, 50/60Hz, (N)PE</td>
<td>3AC 380–480V, 50/60Hz, (N)PE</td>
</tr>
<tr>
<td>Power supply rating</td>
<td>16 A</td>
<td>20 A</td>
</tr>
<tr>
<td>Weight</td>
<td>45 kg</td>
<td>50 kg</td>
</tr>
<tr>
<td>Process monitoring unit</td>
<td>available</td>
<td>available</td>
</tr>
</tbody>
</table>

Further options on request

---

Maurer Magnetic AG
Industriestrasse 8–10
8627 Grüningen, Switzerland
Tel. +41 44 936 60 40
info@maurermagnetic.ch
www.maurermagnetic.ch