Industrial Duty Demagnetizer
MM DN + VE

FMT® Field Multiplicator Technology®

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Removing residual magnetism effectively and efficiently

Modern industrial manufacturing processes impose limits for remanent magnetism on components at 2 A/cm. For example, it is not possible for parts to become sufficiently clean after being washed, or for welding processes to run smoothly, at a residual magnetism exceeding these limits. The MM DN+VE degausser is the perfect choice to efficiently and productively demagnetize parts in your manufacturing process. Depending on the design, the MM DN+VE degausser creates a degaussing field of 50 up to 180 kA/m. This makes it possible to demagnetize bulk parts in carriers, transport containers, or complex individual parts, with a pulse lasting only a few seconds – and at a quality level never before reached. The brief demagnetization pulse, the precise dimensioning of the active opening, and the fine tuning of the field strength make sure that the demagnetization process is highly effective. The MM DN+VE degausser is ready to be integrated into highly automated manufacturing processes in an industrial environment. Its operation is simple and intuitive. Its wide performance range makes this degausser the trendsetting demagnetizer for production lines of the future.

Characteristics

• Demagnetization solution that is optimally tailored for any application
• Highest level of process security and quality, thanks to the Maurer Degaussing Process
• Reduced dimensions due to pulse demagnetization
• Ready for remote control and automation
  – Integrated control interface 24 V I/O
  – Several fastening points for simple installation
  – Optional light barrier for activation
• Intuitive, secure set-up and operation
• Heavy-duty design
• Power factor correction

Maurer-Degaussing®-Technology

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

Power modules

The power modules contain the power electronics, interface and control processor of the demagnetization system. The power module is detachable from the coil.

Power module MM DN150...1850

• Optimal preset demagnetization frequency
• Patented pulse demagnetization for the demagnetization at fixed position
• Easy integration into automated production lines by 24V I/O interface
• Interface for photoelectric sensor for automatic triggering of pulse
• Choice of three power levels (MM DN750...1850)
• Low power consumption due to power factor correction
• Indicator lamps for easy process monitoring
Optimally tailored demagnetization solution

The parameters of the demagnetization process are predetermined by tests and experience gained from similar applications. The demagnetization solution is implemented quickly using optimally designed power and coil modules.

Integration in production lines

This module is typically deployed in automated industrial manufacturing, where productivity and process security are decisive factors. The simple and intuitive functionality of the MM DN+VE degausser makes it easily fit into every manufacturing process.

Demagnetization with MM DN+VE offers you:

- No sticking of swarf, dust particles, or other ferromagnetic contaminants
- Perfect coating processes
- Cleanliness in washing processes
- Efficient welding processes
- Compliance with requirements for residual magnetism according to any process

Range of parts

- Parts in transport containers (bulk materials)
- Complex, large individual parts
- Parts with local magnetically hard spots

Complete demagnetization of assembled bearings with pulse technology and high field strength.

An MM VE with an integrated light barrier for pulse activation, allowing the machine to operate completely automatically.

Increased productivity through the demagnetization of parts. Bulk materials, transport containers with content, or even complex individual parts are demagnetized using a degaussing field pulse.

Coil module MM VE

The performance and the dimensioning of the MM VE coil module are optimally tailored for each application. An active air cooling system cools the high-performance demagnetization coil. The housing is made of robust and fully insulated materials. The standard package includes 4 meters of connection cable to link the MM VE coil module to the corresponding MM DN power module.
### Coil Module

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MM VE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior dimensions W x H x D</td>
<td>width 560 up to 1230 mm, height 530 up to 1430 mm housing depth 600 mm, active opening depth 500 mm</td>
</tr>
<tr>
<td>Coil-opening W x H</td>
<td>100 x 100 up to 1000 x 1000 mm</td>
</tr>
<tr>
<td>Field strength, peak(^1)</td>
<td>Typically 50 kA/m up to 180 kA/m</td>
</tr>
<tr>
<td>Pulse rate</td>
<td>Typically 2 up to 6 pulses/min.</td>
</tr>
<tr>
<td>Weight</td>
<td>Typically 80 up to 150 kg</td>
</tr>
<tr>
<td>Demagnetization frequency</td>
<td>Typically 10 up to 30 Hz</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 41</td>
</tr>
<tr>
<td>Mounting holes</td>
<td>Ø 9 mm</td>
</tr>
</tbody>
</table>

\(^1\) Divide by 1.41 to obtain RMS value

### Power module

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MM DN150</th>
<th>MM DN750</th>
<th>MM DN1100</th>
<th>MM DN1850</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior dimensions W x H x D [mm]</td>
<td>300 x 400 x 210</td>
<td>600 x 600 x 350</td>
<td>600 x 600 x 350</td>
<td>600 x 600 x 350</td>
</tr>
<tr>
<td>Line power supply</td>
<td>200–240 VAC 50/60 Hz</td>
<td>3 x 380–440 VAC 50/60 Hz</td>
<td>3 x 380–440 VAC 50/60 Hz</td>
<td>3 x 380–440 VAC 50/60 Hz</td>
</tr>
<tr>
<td>Fuse</td>
<td>10 A</td>
<td>16 A</td>
<td>16 A</td>
<td>20 A</td>
</tr>
<tr>
<td>Weight</td>
<td>12 kg</td>
<td>45 kg</td>
<td>45 kg</td>
<td>50 kg</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 41</td>
<td>IP 41</td>
<td>IP 41</td>
<td>IP 41</td>
</tr>
<tr>
<td>Configuration</td>
<td>Wall mount</td>
<td>Wall mount</td>
<td>Wall mount</td>
<td>Wall mount</td>
</tr>
<tr>
<td>Optional machine base</td>
<td>Red machine base</td>
<td>Red machine base</td>
<td>Red machine base</td>
<td>Red machine base</td>
</tr>
<tr>
<td>Optional photoelectric sensor</td>
<td>LE001</td>
<td>LE001</td>
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<td>LE001</td>
</tr>
</tbody>
</table>

### Protective housing for MM VE coil module for operator safety

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MM DN150</th>
<th>MM DN750</th>
<th>MM DN1100</th>
<th>MM DN1850</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior dimensions W x H x D</td>
<td>1990 x 1615 x 1080 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum active opening MM VE</td>
<td>520 x 520 mm</td>
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</tbody>
</table>

The coil opening for the protective housing is available in horizontal or vertical format.

Option with horizontal coil opening.