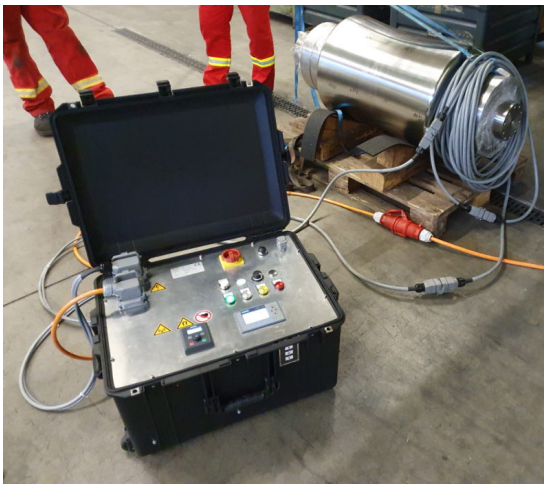
Mobile Magnetic field device MGFE-70

The magnetic field devices MGFE are mobile systems for demagnetization and magnetization of ferromagnetic components. The focus of the devices is on precise demagnetization. Technologically, demagnetization is performed with precise alternating field sine wave pulses, which generate their effect in magnetic field coils.

Flexible magnetic field cables are suitable as a coil system for demagnetizing individual components or entire machines. The parts to be demagnetized are wrapped with the magnetic field cables, or the cable wound into a coil is placed on the relevant part surfaces.
Difficult-to-reach places can usually be easily reached due to the flexibility of the magnetic field cables.
The magnetic field cables can be coupled to increase the length and thus the number of turns and field strength.
In addition to the magnetic field cables, coils of the SSM series can also be used with the MGFE demagnetizers. For special cases we can also develop special coils with specific dimensions, field strengths or field profiles.

The successful use of the MGFE demagnetizing equipment is ensured with a one to two-day training course. This training takes place either classically at the customer's site or online via video conference.



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Technical data:
- Supply: 3x380...480VAC 50/60Hz, 16A..32A (at 16A reduced power)
- Output tension: ~400VAC
- Repeatability of current profile: better than 99.5% (at 50% of the maximum current)
- Dimensions WxHxL: ~680x530x380mm
- Weight: ~24kg (without power cable and magnetic field cables)
- Mobility: Rollable case with pull-out handle

Magnetic field cables:
- Different conductor cross sections and lengths (compromise weight handling/heating):
  - Magnetic field cable EK-L-15-11: Ø cable 16mm, weight ~10kg, length 15m
  - Magnetic field cable EK-L-8-11: Ø cable 16mm, weight ~6kg, length 8m
  - Connection adapter EKK-ML-11
- Maximum theoretical field strength with 4x EK-L-15 and winding diameter 500mm: approx. 90kA/m (30‘000AW). (by a factor 1,5 lower, when using function magnetization)
- Extension of magnetic field cables by coupling

Other coil systems:
- Tunnel coils of the SSM series
- Special coils

Technological function demagnetization:
- Low frequency sine wave pulse demagnetization with 1Hz for high penetration depth
- Progressive frequency sine wave pulse
- Pulse length between 1s and 30s, depending on needed application
- Setting of all relevant process parameters (amplitude, pulse duration, rate of field increase and decrease etc.)
- Further technological field control functions for special applications

Technological function DC magnetization:
- Adjusting the polarity, amplitude and duration of the DC sequence

Technological function magnetic symmetry:
- Adjustment of the residual magnetism in fluxing direction

Typical application fields:
- NDT (MPI, ECT)
- Rotating equipment
- Mechanical engineering, tool manufacturing
- Steel industry, supply parts
- Welding
- R&D

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