Maurer PRO mobile*

Mobile modular high-performance demagnetizers

- Mobile design and variable cable coils to demagnetize a wide range of parts for various applications
- Only Maurer Magnetic offers a patented lay-on process for a time efficient demagnetization of large parts. No winding of the demagnetization cable around the object is necessary.
- Very high magnetic field strengths for demanding demagnetization tasks

**The new Maurer PRO mobile devices are at the end of their development process when this brochure got published. Some pictures in this brochure show previous generation machines or prototypes. All information without guarantee.*

Maurer Magnetic AG, Industriestrasse 8 – 10, 8627 Grüningen / Switzerland
T +41 44 936 60 40, F +41 44 936 60 48, info@maurermagnetic.com

Swiss Made

Modular high-performance demagnetizers

Maurer PRO mobile

Many applications cannot be demagnetized with stationary machines. For such cases, Maurer Magnetic offers mobile high-performance demagnetizing machines with flexible cable coils. The modular system can be optimally configured for the respective application. Compared to similar systems, Maurer PRO mobile demagnetizers generate higher magnetic field strengths. In addition, Maurer Magnetic offers a patented lay-on process for flexible cable coils, which is much more efficient than wrapping the cables around the components who must be performed when using other systems.

Setup

Powermodule	Coilmodule
Maurer PRO- S mobile	AK23/1.5-20 +K23/1.5-15
Maurer PRO- L mobile	AK23/2.5-20 +K23/2.5-15
Maurer PRO- XL mobile	K8/10-30 + A8/10-1.4 or K5/6-15 + A5/6-1.6

Applications

Maurer PRO mobile - versatile use

Typ	Maurer PRO-S mobile	Maurer PRO-L mobile	Maurer PRO-XL mobile
Primarily application	Low cycle time applications	Applications where high field strengths are required. Limited cycle time	Heavy duty applications
Use cases	› Aviation › Mechanical production machines in watch industry › Machine components	› Welding of large surface objects › Welding, particle adhesion, and eddy current problems of large shafts and rotors › Electron beam welding › Powder presses › Machine components	› Welding of large surface objects › Welding, particle adhesion, and eddy current problems of large shafts and rotors › Eliminate magnetism of infrastructure objects: buildings, railroads, bridges, etc.

Maurer Magnetic AG, Industriestrasse 8 – 10, 8627 Grüningen / Switzerland
T +41 44 936 60 40, F +41 44 936 60 48, info@maurermagnetic.com

Swiss Made

Example: demagnetization in aviation

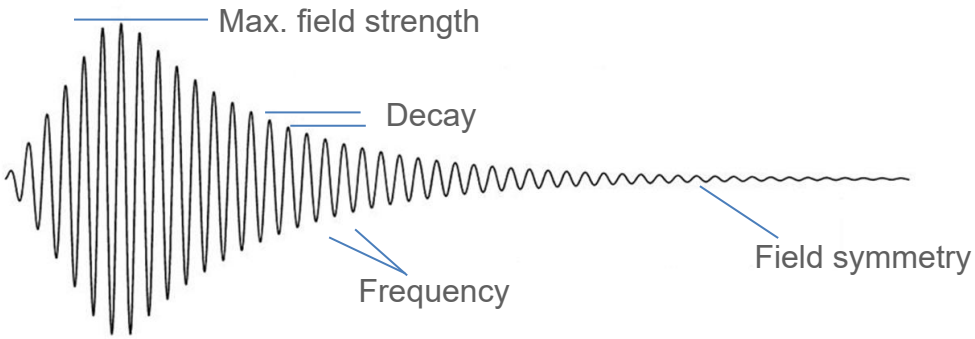
Reason	Solution	Demagnetization process
› Navigation issues due to magnetized ferromagnetic structures in the wing	Maurer PRO-S mobile	› Lay-on and pulse *(Patent granted)*

Example: demagnetization of rail tracks

Reason	Solution	Demagnetization process
› Strong magnetism in tracks causes faults in the train control system	Maurer PRO-XL mobile	› Local magnetic areas: step-by-step demagnetization by lay-on and pulse (see image). › Continuous demagnetization for longer track sections by using a demagnetization system on a mobile rail trolley

AC field pulse demagnetization

Maurer high-performance AC field universal pulse	
Max. field strength [kA/m]	Reversal of hard magnetic domains, penetration depth
Frequency [Hz]	Penetration depth
Effective area	Complete magnetic fluxing of material
Feld homogeneity	Uniform effect in the material
Precision of the decay	Low decrement and best field symmetry at the end of the process for the best possible domain distribution



Maurer Magnetic AG, Industriestrasse 8 – 10, 8627 Grüningen / Switzerland
T +41 44 936 60 40, F +41 44 936 60 48, info@maurermagnetic.com

Swiss Made

DF PRO mobile

Technical data

Power module

		Maurer PRO-S mobile	Maurer PRO-L mobile	Maurer PRO-XL mobile
Field strength**	1 cable	70 – 90 kA/m	130 – 180 kA/m	120 – 130 kA/m
	2 cables	110 – 140 kA/m	160 – 230 kA/m	120 – 160 kA/m
	3 cables	-	-	120 – 180 kA/m
Max. coil current		39 A	102 A	180 A
Dimension	(L x B x H)	790 x 530 x 390 mm	1035 x 600 x 1100 mm	
Weight		41 kg	167 kg	193 kg
Mobility		Trolley with 2 rollers and handles	Case with wheels and handles. Load crane suspension. Flight case for easy shipment	
Line power supply	3 x 380…480 VAC 50 / 60 Hz	16 A CEE	63 A CEE	63 A CEE
Operation interface	Operate the demagnetization by remote control, device settings via control panel			
Operational features	Start, program selection, emergency stop, offset, machine status indicator lights. Display to operate the machine settings and measuring the power supply and energy consumption			
No. of programs		4	4	4
Offset function		yes	yes	yes

** Depends on the diameter of the cable coil

Cable modules

Type	Specification cable coils	Fitting to
*AK23/1.5-20	Weight ~14kg, length 20m, 23 conductors wired in series, 15m extension possible (K23/1.5-15)	Maurer PRO-S mobile
AK23/2.5-20	Weight ~20kg, length 20m, 23 conductors wired in series, 15m extension possible (K23/2.5-15)	Maurer PRO-L mobile
**A8/10-1.6	Weight ~7kg, adapter cable for cable type K8/10-30 (necessary), 8 conductors wired in series	Maurer PRO-XL mobile
***K8/10-30	Weight ~39kg, length ~30m, multiple extension possible, 8 conductors	Maurer PRO-XL mobile
A5/6-1.4	Weight ~5kg, adapter cable for cable type K5/6-15 (necessary), conductors wired in series	Maurer PRO-XL mobile
K5/6-10	Weight ~10kg, length ~15m, multiple extension possible, 5 conductors	Maurer PRO-XL mobile

**AK – Adapter cable #number of conductors/conductor cross-section-cable length*
***A – Adapter #number of conductors/conductor cross-section-cable length*
****K – Cable #number of conductors/conductor cross-section-cable length*

CE

All information without guarantee.

Maurer Magnetic AG, Industriestrasse 8 – 10, 8627 Grüningen / Switzerland
T +41 44 936 60 40, F +41 44 936 60 48, info@maurermagnetic.com

Swiss Made