HLE + Maurer PRO

Bundle Demagnetizer

Demagnetizes a bundle in less than 5 minutes – including loading and unloading!

- Demagnetization with very low frequencies (< 1 Hz) possible to demagnetize the material in depth.
- Helmholtz setup with two coils possible to achieve a higher demagnetizing power.
- Very high magnetic field strengths with very large active opening for demanding demagnetizing tasks.

Swiss Made

NDT Supply.com, Inc.
7952 Nieman Road
Lenexa, KS 66214-1560 USA
Phone: (913)-685-0675
Email: sales@ndtsupply.com

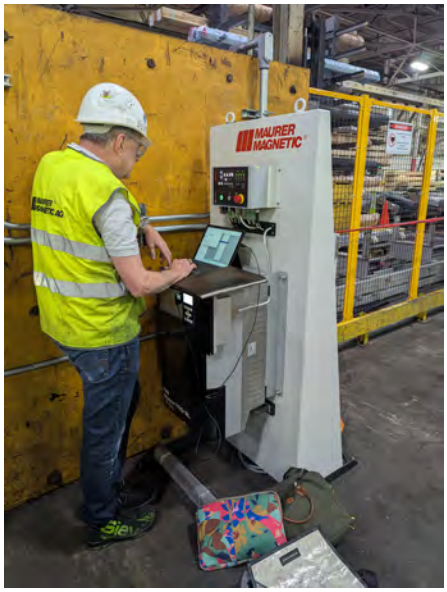
Application

Demagnetization of bar bundles

The demagnetization of metal bars in bundles can be carried out both in a continuous process with one coil and in a Helmholtz setup with two coils.

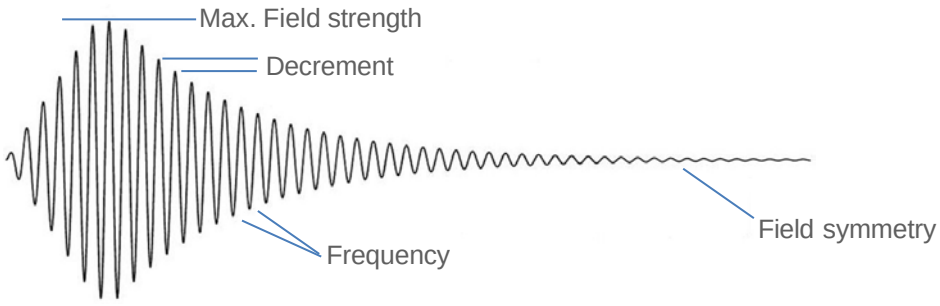
Application examples:

Method	Continuous demagnetization	Demagnetization in the Helmholtz setup
Reasons	Interfering magnetism in subsequent processes, particle adhesion, more difficult handling of the bars	
Solution	1x HLE 600x600 + Maurer PRO-L 1x HLE 900x900 + Maurer PRO-XL	2x HLE 600x600 + Maurer PRO-L 2x HLE 900x900 + Maurer PRO-XL
Process	Continuous demagnetization	Pulse demagnetization
Procedure	Bundle is conveyed through the coil and is exposed to a continuous alternating field.	Bundle is placed in the middle of the two Helmholtz coils. The coils are moved together, and a pulse is triggered (! Attention the bundle should still protrude 1 m from both coils).



Demagnetization by decaying alternating magnetic field

Demagnetization by a high-power AC sinusoidal field-universal pulse	
Max. Field strength [kA/m]	Reversal of the hard magnetic domains, penetration depth
Frequency [Hz]	Penetration depth
Effective range	Complete magnetic flooding through the material
Field homogeneity	Uniform effect in the material
Precision of the decay	Low decrement and precise field symmetry at the end of the process for the best possible domain distribution and demagnetization



Technical data*

Coil module		HLE 600x600	HLE 900x900
Outer dimensions (mm / ″)	W	964 / 38.0	1214 / 47.8
	H	1201 / 47.3	1448 / 57.0
	D	600 / 23.6	600 / 23.6
Active opening (mm / ″)	W	600 / 23.6	900 / 35.4
	H	600 / 23.6	900 / 35.4
	D	440 / 17.3	440 / 17.3
Degree of protection IP		20	
Max. Field strength[1]	kA/m	Up to 105 (continuous) Up to 160 (pulse mode)	Up to 105 (continuous) Up to 145 (pulse mode)
Cycle time		Designed customer specific	
Demagnetization frequency	Hz	Designed customer specific	

Power module		DF 300	DF 550
Outer dimensions (mm / ″)	W	350 / 13.8[1]	455 / 17.9[2]
	H	460 / 18.1[1]	700 / 27.6[2]
	D	287 / 11.3[1]	336 / 13.2[2]
Power supply	VAC	3PE 380…480 +/- 2%	
	Hz	50…60 +/- 2%	
Weight	kg	33	59
Degree of protection IP		55	
Peak current [3,4]	A	102	180
Internal protection	A	32	63
Suitable for automation		Yes	
Additional performance elements		Chopper resistor, DC link capacitor	

[1]With mounting bracket 127 mm / 5.0” wider, 11 mm / 0.4” higher and 95.5 mm / 3.8” deeper.
[2]With mounting bracket 22 mm / 0.9” wider, 11 mm / 0.4” higher and 95.5 mm / 3.8” deeper.
[3]Effective value lower by a factor of 1.41

MAURER MAGNETIC®

Control module		DF Control
Outer dimensions (mm / ″)	W	278 / 10.9[1]
	H	168 / 6.6[1]
	D	88 / 3.5[1]

Operating elements	Reset, start, emergency stop, offset, program selection
Display elements	Reset, start, active, emergency stop, offset, program selection, output power, process OK, temperature status, fan status, module error, connection error, frequency inverter error
Modules	Module 1: Frequency inverter module Module 2: Emergency stop module Module 3: Coil module Module 4: HMI module (optional) Module 5: PLC interface module (optional) Module 6: Fan module 1 Module 7: Fan module 2 Module 8: Power supply module
Optional control	HMI panel PLC interface

[1]With mounting bracket 66 mm / 2.6” wider, 0 mm / 0” higher and 50 mm / 2.0” deeper.

Supply module		BN mains connection box
Outer dimensions (mm / ″)	W	500 / 19.7
	H	700 / 27.6
	D	235 / 9.3

Mounting module		Stand
Outer dimensions (mm / ″)	W	700 / 27.6
	H	1800 / 70.9[1]
	D	1000 / 39.4

[1]Height without height-adjustable feet.

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*All information without guarantee.