MAGNETIZING
DEMAGNETIZING

The human eye – the symbol of our work:
Quality assurance by control.
Perfect in function and technology.
Open for innovation.
Recognition of change at early stage and intelligent implementation.
The success is visible.

MAGNETIZATION SYSTEMS

Several decades have passed since List-Magnetik constructed the first magnetizing yokes to the current capacitor discharge devices. Over that time, we have realized many successful projects and, in particular, we have designed and manufactured customer-specific magnetizing systems, mainly for the electromotor manufacture of the automotive supply industry.
Furthermore, these systems have a long service life despite low cycle times, and often operating 24/7, and are used worldwide. Our expertise in planning, simulation, electrotechnical production and the construction of the magnetizing coils are recognized by large organizations.

The **UKI-MPLC** magnetizers operate conforming to the capacitor discharge method with integrated PLC control with graphical control terminal. They are used in the multi-pole magnetization of all types of permanent magnet systems, and, more particularly, for the magnetization of rare earth magnetic materials. These devices are equipped with all the necessary safety components and also with the appropriate signaling signals for use in the field of line production in accordance with the quality standard (DIN EN 13849-1).

In combination with our impulse transformers **IT-1** and **IT-2**, impulse currents of up to 100 kA are possible. This consequently results in optimal saturation magnetization of multipolar rare earth magnets with a very narrow neutral pole change zone, and at the same time, very high cycle times.

The devices are available with the following functions:

- Individually adjusted to the motor geometry magnetizing coils
- Magnetic flux measuring device (Fluxmeter FL-3)
- Integrated current monitoring to control magnetic field strength
- Integrated temperature monitoring of the connected magnetizing device
- Integrated Profibus interface

We design each magnetizer according to its individual application.
Let us know your specific requirements, and we will be happy to send you an offer.
Please include the following data:

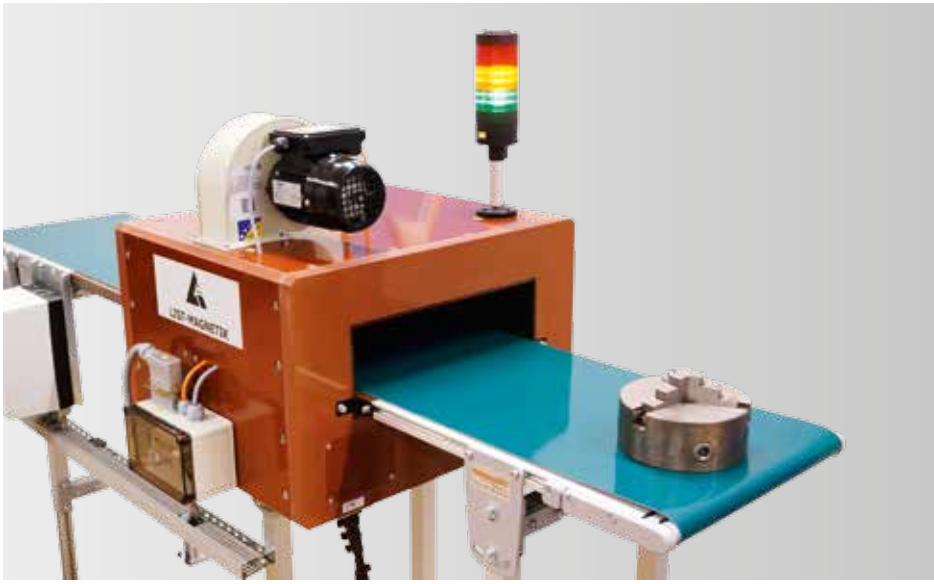
- Magnet (magnet system) geometry
- Magnetic material or label
- Magnetization type / number of poles
- Cycle time in production mode
- Sketch or drawing of the magnet system

DEMAGNETIZATION SYSTEMS

To reduce residual magnetism to a value close to zero is the task for demagnetizing devices. They can be used for the demagnetization of all types of machine parts, tools, cutting boards and bulk materials.

Depending on the dimensions and number of pieces, portable hand-held units or stationary systems are suitable. The basic technique is in general: Alternating fields which act on the object and which are slowly reduced from a maximum value to zero. The simple portable demagnetizers use a coil with electrical cores, which is connected to the alternating current network. The coil is slowly moved over the objects.

With our extensive experience in magnetization and demagnetization, we can also design and manufacture individual stationary demagnetization systems. The demagnetization of steel parts is a complex subject and must be solved in many individual cases by precisely adapted methods. The picture shows a system for the demagnetization of vehicle parts with a conveyor belt for integration into a production line. The cabinet operates in the capacitor discharge method SIE (Schwing-Impuls-Entmagnetisierungsverfahren / Oscillation Pulse Demagnetization) and a high-current thyristor circuit. In the coil tunnel the discharge takes place with a slowly decaying field, with the demagnetization frequency being very low (10-20 Hz). Very high field strengths can be achieved, which can penetrate the solid part. The part to be demagnetized can be completely demagnetized.



HE-1 Portable Demagnetizing Device

With the Portable Demagnetizing Device **LIST-MAGNETIK HE-1**, you can easily access even hard-to-reach places. For demagnetizing machine parts, tools, rotating parts, cutting plates, etc., simply pass the device over the magnetized objects and then slowly remove it.

It has a 230 V AC connection and produces an alternating magnetic field of 50 Hz with sufficient field strength for the demagnetization of alloyed steels.

Dimensions:	Ø 130 x 60 x 300 mm
Weight:	3,5 kg
Field Strength:	420 A/cm
Active Pole Surface:	Ø 40 mm
Power:	approx. 40 W

HE-2 Portable Demagnetizing Device

The Portable Demagnetizing Device **LIST-MAGNETIK HE-2** can be used either mobile or stationary, as required. The portable device demagnetizes machine parts, tools, rotary parts, cutting plates and much more. It has a 230 V AC connection and produces an alternating magnetic field of 50 Hz with sufficient field strength for the demagnetization of alloyed steels.

In addition to mobile use, you can also use the **HE-2** as a desktop device. In doing so, carry the objects to be demagnetized over the device and then slowly remove them. The HE-2 is also suitable for installation under a conveyor belt, whereby the parts are moved over the device.

Dimensions:	192 x 150 x 272 mm
Weight:	7,9 kg
Field Strength:	750 A/cm outer, 520 A/cm center
Active Pole Surface:	200 x 20 mm
Power:	approx. 70 W

LIST - MAGNETIK

LIST-MAGNETIK
Dipl.-Ing. Heinrich List GmbH
Max-Lang-Straße 56/2
D-70771 Leinfelden-Echterdingen

Phone +49 (711) 90 36 31-0
Fax +49 (711) 90 36 31-10
info@list-magnetik.de
www.list-magnetik.de