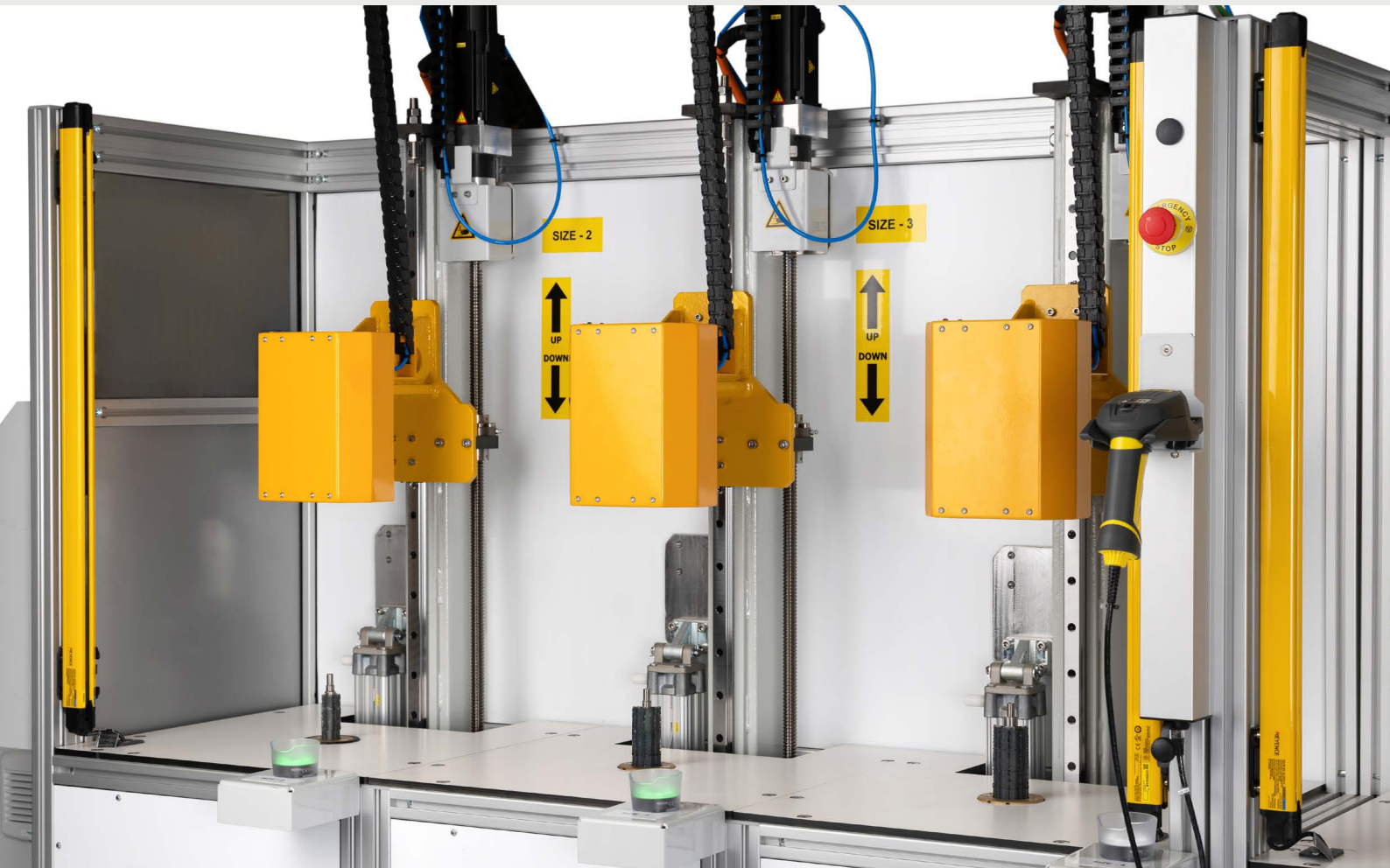




Laboratorio Elettrofisico
LE GROUP



PRODUCTS & SERVICES

We are a global company specialized in the engineering, design and manufacturing very accurate magnetizing and magnetic measurement equipment. We also offer complete magnetizing stations with integrated handling and measuring systems.

OUR PRODUCTS

1

MAGNETIZING EQUIPMENT

For various types of rotors' configuration and their associated magnetizing fixtures



2

MEASURING EQUIPMENT

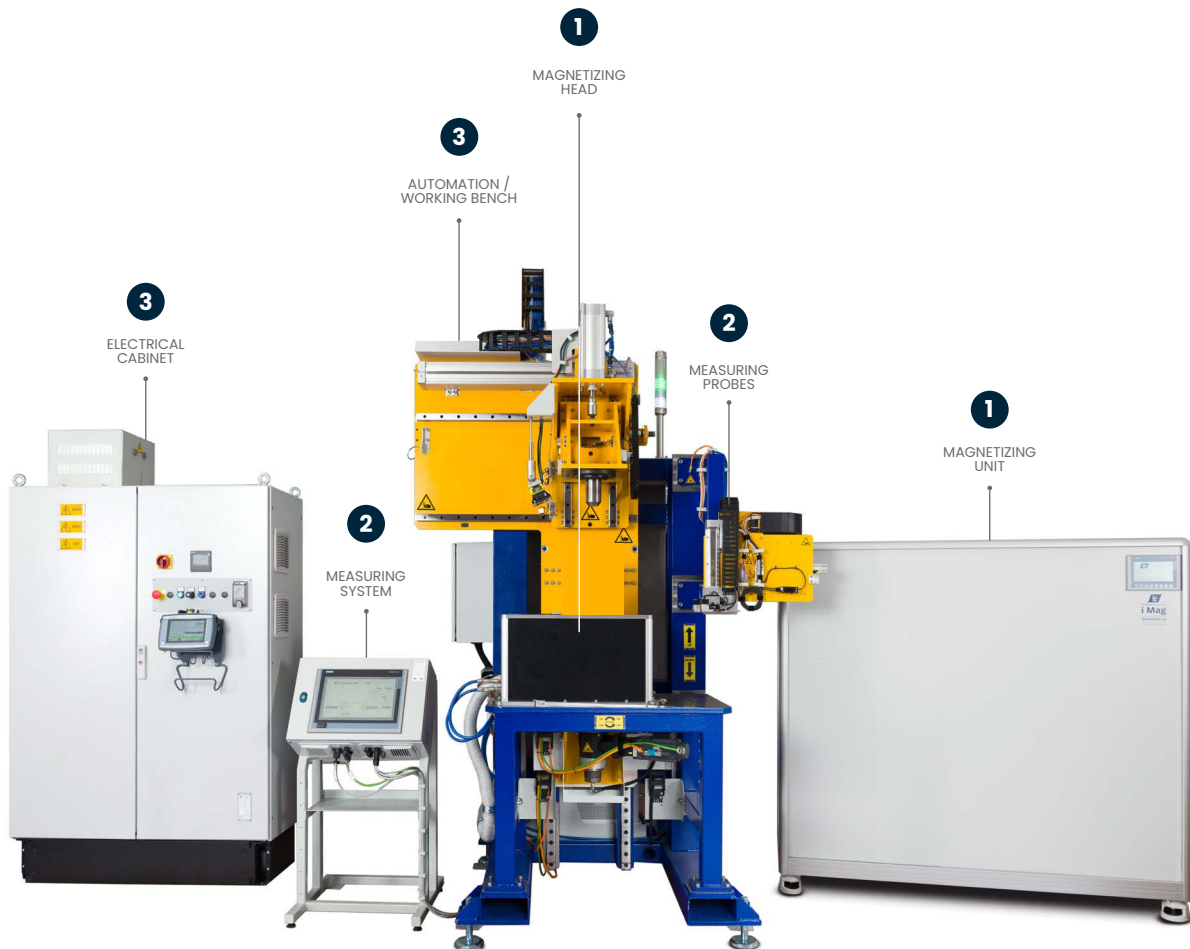
For various types of magnetic materials, whether they are hard, soft, cemented carbides, or feebly



3

INTEGRATED SYSTEMS

Integrated automation with powerful options

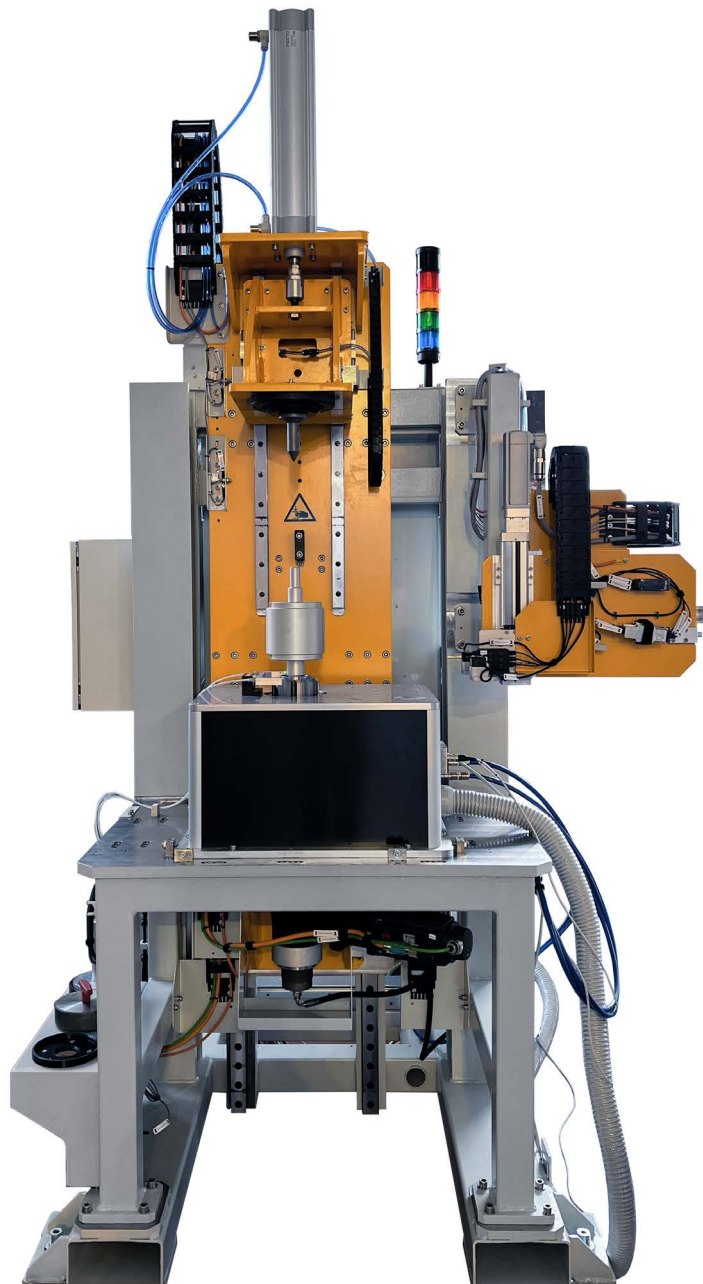


MAGNETIZATION SERVICE

Producing samples and pre-series of powertrain rotors can be a costly endeavor due to the required magnetization equipment.

We can assist our valued customers during this phase by providing a complete automatic magnetization station and scalable magnetizers directly at your facility. In addition to magnetization, we offer comprehensive part measurement with our integrated B-mapping system.

This greatly decreases the initial investment, as only the magnetization head, which is always customized around the part design, is needed to produce these samples.



Set up for prototyping

SPECIAL PROJECT



First of all, it will have to supply the DC power

Source: LinkedIn SAES Getters, November 2023

SAES GETTERS & LE

SAES Getters is an Italian company that produces components and systems made of advanced materials patented by the company and used in industrial and medical applications.

On its path towards fusion energy, SAES faced the challenges of controlling and regenerating one of the largest NEG pumps, and in collaboration with **Laboratorio Elettrofisico**, SAES developed a control panel that allows full control of the main parameters of the NEG pumps, such as pressure, voltage and current of each power supply, in an innovative, intuitive and flexible way.

SOFTWARE

MANAGEMENT & CONTROL

Using PID control, we manage the system's temperature, which must be kept constant during the experimental cycle according to its settings. We also maintain the pressure of special vacuum pumps below a set limit to ensure proper system operation.

The software also ensures proper reporting and management of alarms and component failures.

HUMAN MACHINE INTERFACE

We have created a fully dedicated HMI that allows the operator to monitor and manage various system parameters, providing graphical representations of all essential information for proper experiment management.

The software can also connect to the system's general supervisor, which acts as the master for all our operations. The supervisor receives all the parameter logs, staying always up-to-date on the experiment status.

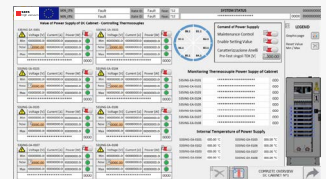
HOME



8 CABINET



SINGLE CABINET



MECHANICAL / ELECTRICAL

HARDWARE

We manage up to 8 cabinets, each with 8 power supplies, including all the electrical components for monitoring and protecting the system. Each power supply controls a single pump connected to a temperature probe.





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