

Product Brochure

Magnetiser M800 series industrial range

The M800 series industrial range of production magnetisers are designed to integrate into semi-automated and fully automated production lines. They are usually supplied with custom fixtures or production towers containing the fixture usually with integrated fluxmeter feedback as part of the fixture tower. First introduced in 2005, now on the 3rd generation which first launched and first shipped in 2019.



A first generation M800- 400kj Magnetiser with custom magnetising fixture and mechanical handling for a 1 Tonne ferrite magnet

Key benefits

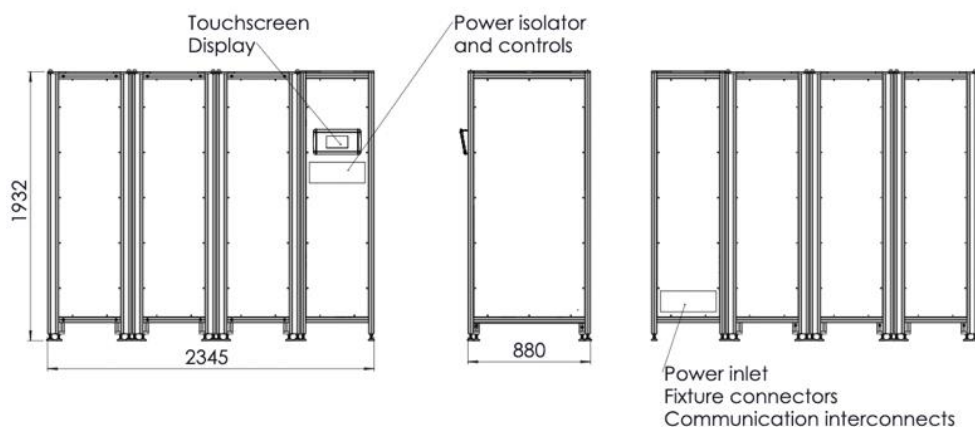
- **High Power Magnetisers** – M800 with energies from 200kj to 400kj at 800V.
- **Industrial scale** – modular multi-tower magnetiser.
- **Reliable** – Used since 2005, all units still in service.
- **Easy-to-use** - fixed or optional adjustable position 7" touch screen with admin programmable display and simple production interface (Dual Pulse switch, Emergency stop and Display showing status) or controllable as part of a fully automated production line.
- **Production software** – Hirst proprietary production software which is intuitive and easy to use which is customisable to include multiple part programmes.
- **Multi- fixture** – Up to 2 magnetising fixtures can be multiplexed to a single M800.
- **Magnetising fixtures** – all supplied with optional custom fixtures in tower format for large magnetic parts
- **Communications** - A range of industry standard connectors two RS232 ports, CANopen and PLC interfaces connection to Hirst gaussmeters and Fluxmeters and PCs / Computers.
- **Production line integration** – can be used in manual, semi-automated and fully automated production lines
- **High Security** - Admin passcode lock for production applications to protect production setting from operator changes.
- **Safety** – Interlock and emergency stop, internal protection circuits prevent damage (inc temperature on fixture and fixture plugged in, auto energy dump under emergency stop).

Applications

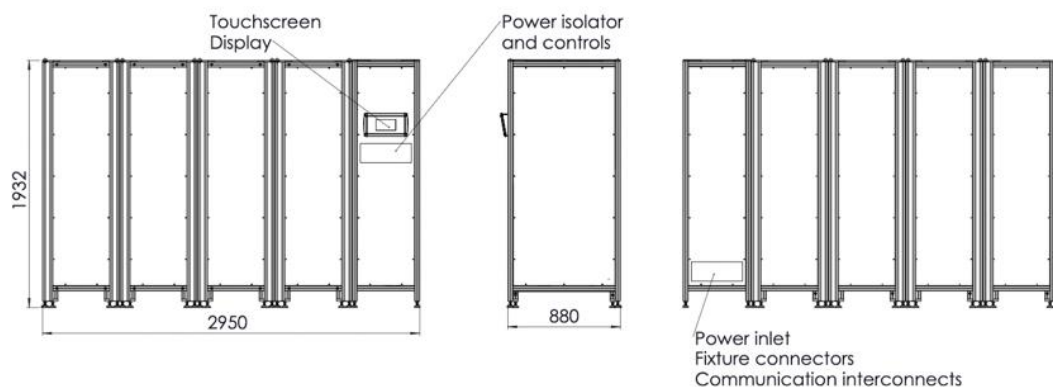
- Designed for the industrial scale magnetisation to saturation for all types of magnetic assemblies.
- M800-200kj & 300kj - Single-shot magnetisation of large ferrite magnets for recycling or large electric generators.
- M800-400kj - Single-shot magnetisation of largest ferrite magnets for recycling up to two tonnes or very large electric generators for offshore wind applications.

Technical Data

Modes	Industrial Magnetiser
Maximum voltage	800V
Magnetiser Energy	200kj, 300kj and 400kj – larger on request
High Voltage resolution	1V
Coil connections	HV connectors
Number of fixtures that can be connected	Up to 2 multiplexed fixtures
Output Configurations	Magnetiser
Communications and interfaces	Serial connection - RS232 9 way 'D' inc SCPI and 1x 9 way 'D' CAN bus (CANopen), PLC interface and with thermocouples for fixture temperature monitoring
Integration	Standalone and easy integration with Hirst GM08 gaussmeters, IFM06 fluxmeter and other automation systems
Display	7" touch screen
Colours and materials	Steel and Aluminium case
Dimensions / Weight	1932x2345x880mm – M800 – 200kj and 300kj / 1970kg 1932x2950x880mm - M800 – 400kj / 2550kg
Operating Temperature Range	+5° C to +40° C
Power Supply	Three Phase 220/240VAC 50-60Hz 32A or 110VAC option Max 3m cable length



M800-200kj and 300kj industrial magnetisers



M800- 400kj industrial magnetisers

Warranty and Calibration

Supplied calibrated with 1 year warranty. A calibration is required every year to maintain the highest levels of performance – Hirst has a dedicated team of installation and service engineers, available to travel worldwide to install and support equipment, service contracts are available. See website for details.

Accessories and Application examples



A first generation M800-400kj Magnetiser with custom magnetising fixture and mechanical handling for the 1 Tonne Ferrite magnet, the fixture weighted 25 Tonnes the first was shipped in 2005 and is still in service today



Above a second generation custom 2 pole fixture for use with a M800-400kj magnetiser for manufacturing 1.4 tonne magnets for use in recycling applications



Hirst Magnetic Instruments has been active in providing solutions for 60 years in magnetics and magnetic measurement. Hirst manufactures precision hand-held gaussmeters, Fluxmeters, de-magnetisers, bench top & workstation industrial magnetisers, industrial production-line magnetisers, pulse field magnetometers (PFMs) for developing characterising magnetic materials and many custom projects.

Hirst Magnetic Instruments Ltd reserves the right to make changes to any specifications or performance implied in this product brochure without notice – please refer to www.hirst-magnetics.com for the latest version.

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