

## Product Brochure

### Demagnetiser DM series workstation range (M1kj, M4kj and M8kj)

A common problem in industry is residual magnetism within parts after machining or working. Often parts stick together, making additional processing difficult. Another typical problem after machining is that parts can pick up swarf, where even washing can prove ineffective. By demagnetising parts, the above problems can be alleviated. The DM series workstation range of production de-magnetisers are designed to be used in manual production or integrate into semi-automated and fully automated production lines. These powerful 1000V magnetisers are touch screen controlled and fully programmable, with admin passcode lock to prevent accidental or unauthorised operator changes. The Hirst workstation range was first introduced in the 1960s and this 5<sup>th</sup> generation product range was launched in 2018.



### Key benefits

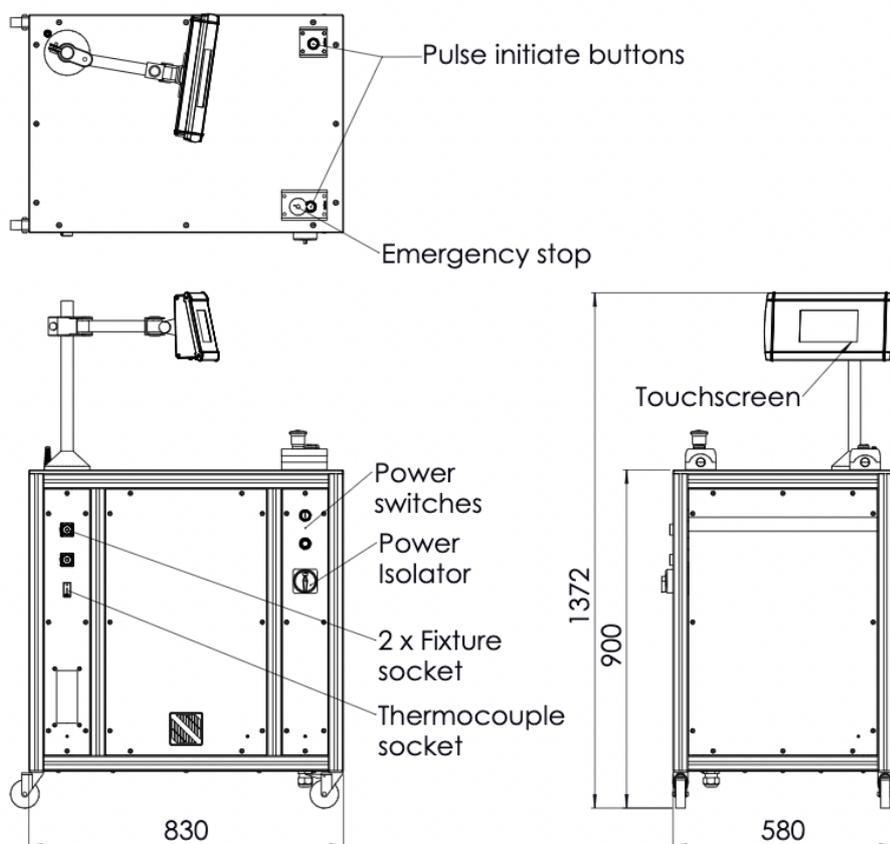
- **Powerful De-Magnetiser** – 1kj, 4kj and 8kj with a maximum voltage of 1000V.
- **Compact size** – Workstation with sufficient space for coil fixtures to be mounted on the work top.
- **Reliable** – Used in over 10 production lines around the world since 2000.
- **Easy-to-use** - Adjustable position 7" touch screen display with admin programmable display and simple production interface (Pulse switch, Abort switch, Display showing status).
- **Magnetising fixtures** - Custom fixtures can be designed by Hirst for the application.
- **Single fast swap connector** – To allow multiple fixtures to be used (if not built in).
- **Communications** - A range of industry standard connectors two RS232 ports inc SCPI and CANopen 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 factory floor and demagnetisation of all types of magnetic materials
- Automotive and Industrial – demagnetisation of bearings and machined parts
- Consumer – demagnetisation of machined blades
- Medical – demagnetisation of needles and other precision parts

## Technical Data

Modes	Production demagnetiser
Maximum voltage	Up to 1000V
Magnetiser Energy	1kj, 4kj and 8kj versions
High Voltage resolution	1V (0.1%)
Coil connections	Fast swap connector – 30 second switch over
Number of fixtures that can be connected	Single (multi-coil fixture option)
Output Configurations	De-magnetiser
Communications and interfaces	Serial connection - 2x RS232 9 way 'D' inc SCPI and 1x 9 way 'D' CAN bus (CANopen), Thermocouple for fixture temperature monitoring
Integration	Standalone and easy integration with Hirst GM08 gaussmeters, IFM06 fluxmeter and other automation systems
Display and controls	Adjustable position 7" touch screen display with admin programmable display and simple high reliability production interface (Pulse switches x2, Emergency Stop and Display showing status)
Colours and materials	Steel and Aluminium case
Dimensions / Weight	1372 x580 x830 mm approx. / 80kg
Operating Temperature Range	+5° C to +40° C
Power Supply	Single Phase 220/240VAC 50-60Hz 16A or 110VAC option Max 3m cable length



Schematic of DM series workstation magnetiser 1kj, 4kj and 8kj versions.

## 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.

## Application examples



DM4kJ de-magnetiser workstation with tray de-magnetisers for medical needles. Each tray contains about 250k parts, with each shot achieving <math><5</math> Gauss on all parts.

## Custom applications



Custom demagnetisation system with conveyer feed front and back.



MCSD-800J De-magnetising system on an automotive production line to remove residual magnetisation on bearings.



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

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