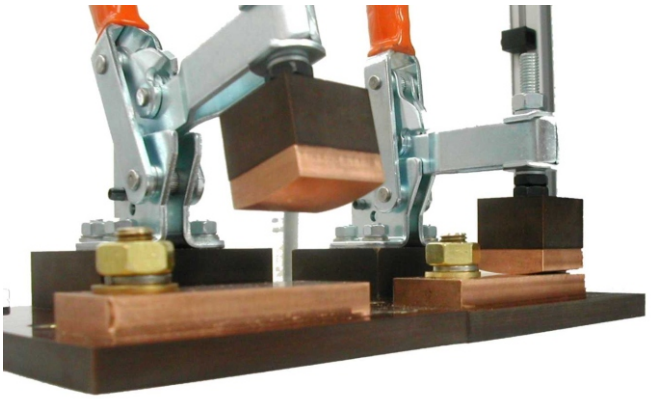
M - Series MRW magnetisers

- For motor rework applications
- Safety cabinet to protect operator
- Quick connection to motors via clamps
- Fast operation
- Energy from 4kJ to 16 kJ
- Ignitron output



Hirst's M-Series magnetisers are available in a version specific designed for motor, alternator etc reworking (MRW).

The motor being reworked is connected to the toggle clamps and the operator is protected from the high voltage by the safety screen.

The magnetiser passes a current through the motor windings, re-energising the permanent magnets.

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Registered in England No 1564814

Description

Like other magnetisers in Hirst Magnetic's M-Series the motor rewind magnetisers are capacitive discharge. A bank of capacitors is charged up to the required energy level then this is discharged very rapidly to produce the high current necessary to generate the magnet field.

The output stage that controls the discharge of the magnetiser is an ignetron. An ignitron is preferred to a thyristor as they can withstand failure of the part being reworked without damaging the magnetiser.

The motor rewind magnetisers are designed to operate at 400V maximum. Other magnetisers in Hirsts range operate at 800V and 3000V. This low operational voltage ensures that the winding insulation of the motors and alternators being reworked is sufficient to withstand the voltage of the magnetisation pulse.

The motor rewind magnetiser use highly reliable relay based logic featuring standard parts that in the unlikely event of a fault replacement parts can be found world wide.

Operation

The operator opens the safety door, which automatically places the machine in a safe state. The motor to be reworked is connected to the magnetiser by the toggle clamps. The doors are closed and the magnetser charges its capacitor bank. A ready

When the operator is ready they press the green buttons and the magnetiser discharges into the connected motor re-energising the permanent magnets.

A volt meter on the front panel shows the current charge voltage and a control for adjusting the magnetising voltage is provided.

Saftey

The magnetiser features a poly-carbonate safety screen to protect the operator from the high voltage of the magnetiser or any projectile parts caused by a failed motor being serviced.

When the safety doors are open an interlock removes any voltage from the capacitor bank and prevents the magnetiser from any further charging

Demagnetisation

Some servo motors require partial demagnetisation in order to service them. By connecting the servo motor to the magnetiser and progressively changing the polarity of the connections and reducing the voltage it is possible to partially demagnetise the servo motor to facilitate disassembley. A polarity reversal switch is available as an option extra to save the operator from opening the cabinet and reconnecting the motor each time. Please note this is not a true demagnetisation nor should this unit be considered a demagnetiser.

Specifications

System parameters

Maximum system energy	4 kJ - 16 kJ
Maximum working voltage	400 v
Cycle time better than	20 seconds

Bulk properties

Weight	400 kg approx
Input voltage	110/240 volts
Max current	16 Amps
Frequency	50/60 Hz
Phases	1
Foot print	790 x 598 mm
Height	1800 mm

Hirst Magnetic Instruments Ltd. also manufactures wide ranges of magnetic instruments, magnetisers, demagnetisers, precision demagnetisers and special magnetic systems.

Due to a process of continual improvement, Hirst Magnetic Instruments Ltd. reserve the right to change any specifications without notice.

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