

MAGNETIC PARTICLE INSPECTION HEAVY DUTY MOBILE POWER PACKS



Our power packs are for supplying the high currents required for magnetic particle inspection equipment. See the reverse of this brochure.

**Up to 20,000 Amps peak AC, HWDC, FWDC and
3-Phase FWDC or combined outputs.**

Fast & efficient low frequency demagnetising.

Infinitely variable, self regulating output.

Large LED meter with full setup display.

**Optional stepped current selection for pure
sinusoidal magnetizing waveform.**



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Our range of mobile magnetic particle inspection power packs provide the high current necessary for magnetic particle inspection of large components or structures that cannot be moved, or for use with existing bench units.

The power pack comprises a regulated, power transformer together with rectifiers and control system all housed in a steel cabinet mounted on four wheels, two of which are braked. The high amperage output is applied to the piece under test via large cross section copper bus bars and flexible cables for current flow or encircling coil magnetising.

The high current output produced allows fewer magnetising operations on large or long components, and is automatically controlled to the desired output level set (within operating limits). If the required output current is not achieved due to poor contact or excessive loads, a warning system is invoked to ensure the operators awareness.

Demagnetising is achieved using reducing amplitude low frequency, approx $16\frac{2}{3}$ Hz, AC current. The demagnetising output automatically begins at 10% above the magnetising value to ensure efficient demagnetising.

Output current is regulated by fast solid state devices which allow self regulation of the desired output. For the purest output the current may be regulated by use of a stepped transformer although this cannot be self regulated to automatically control the output to the desired level.



Control of the power pack is through the screen dialogue and simple rotary control and "ENTER" button. The active unit settings are displayed on the screen which also incorporates a large digital ammeter with reading hold facility.

SPECIFICATION

Magnetising current output: maximum 20,000A through 25 feet of 4/0 cable (95mm²).

Current waveforms: Single-phase AC, HWDC, FWDC and 3-Phase FWDC or a combination of any.

Current control: infinitely variable with current pre-selection or 30 step sinusoidal.

Magnetising shot duration: 0.5s to 4s selectable depending on output level set.

Number of magnetising shots: 1 to 4 selectable.

Ammeter calibration terms: FWDC : peak, AC : true RMS or Peak & HWDC : Mean or Peak.

Control system: microprocessor with rotary selector and "ENTER" button in conjunction with menu display.

Display: alpha-numeric showing status of equipment, settings and error messages.

Dimensions: height 1550mm, width 660mm, depth 1270mm. The unit will fit through standard door.

Supply requirements: 3-phase 380/480v

Courtesy outlet: 110V, 2A for U.V. lamps.

Console controls: rotary selector, "ENTER", "DEMAG", "EMERGENCY STOP" and "MAG" by use of footswitch provided.

Indicators: "DEMAG", "MAG" and "READY".