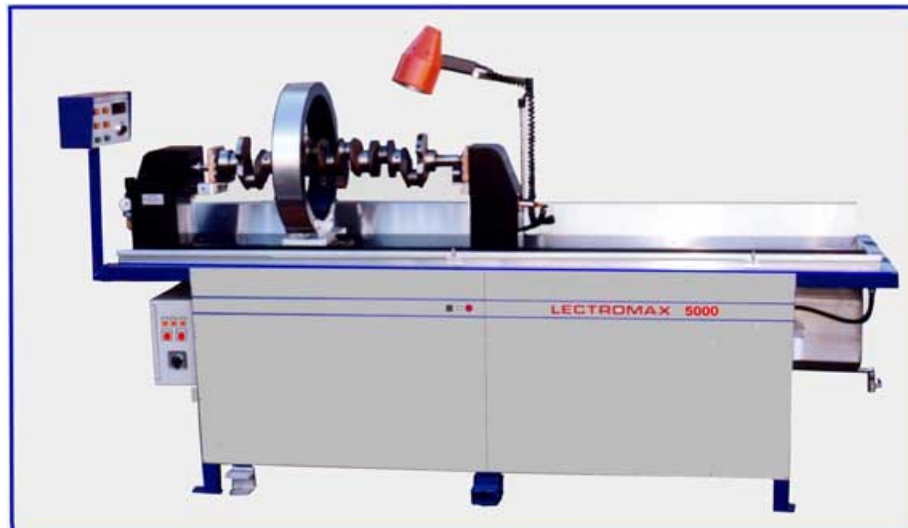


LECTROMAX 5000 MAGNETIC PARTICLE INSPECTION SYSTEM

The **LECTROMAX 5000** is an extremely versatile, high quality magnetic particle crack detection system, offering excellent performance and reliability.

It is designed specifically to meet the exacting demands for quality control during production and maintenance in the aerospace, aeronautical industries.

In addition to conforming to the general standards for the testing of critical components with magnetising peak currents up to 5000 amps peak AC, plus halfwave DC, the **LECTROMAX 5000** complies with MIL-M-6867C, ASTM E1444-94a, BS6072, AS1171, and Australian Electrical Standard AS3100.



The **LECTROMAX 5000** includes the following features:-

- **High reliability electronic system, with plug in modules and supported by a 2 year warranty.**
- **Accurate digital ammeter, enabling the required current to be preselected and displayed prior to the actual shot.**
- **In addition to decaying AC demagnetisation, special circuitry enables the most difficult part to be demagnetised by residual field cancellation.**
- **High quality and rugged construction with stainless steel catchment tank and fluid reservoir.**
- **A comprehensive range of options and accessories are available to extend the versatility of the system to suit virtually any testing requirement, including capacities to accept parts up to 3000mm long and 500kg in weight, and 6000 amp and 7000 amp power pack upgrades.**

The system can be further customised to meet particular requirements.

The **LECTROMAX 5000** is one of a wide range of magnetic crack detectors manufactured by **LECTROMAX Australia**.

Quality at an Affordable Price

by LECTROMAX AUSTRALIA

P.T.O.

LECTROMAX 5000

MAGNETIC PARTICLE INSPECTION SYSTEM

BRIEF SPECIFICATIONS

- Two axis magnetising, to detect defects running in any direction. Current through part to check for longitudinal defects, and coil magnetising to check for radial defects.
- 5000 AC + 5000 HWDC peak magnetising currents. AC to locate surface defects and DC for deeper penetration. Optional 6000 and 7000 AC + HWDC power pack upgrade.
- Accepts parts up to 2000mm long and 500kg in weight on work support steadies. Optional 1350 or 3000mm capacity.
- 375mm internal diameter 4 turn traversing coil, producing 15,000 peak ampere turns, fitted as standard. Optional 300, 450mm and 525mm coils.
- Digital ammeter accurately indicates peak AC + HWDC magnetising currents. Holds display on for 5 seconds and automatically resets. Also displays the demagnetising ramp down current. The meter accuracy is within $\pm 2\%$ between 500 and 5000 amps and $\pm 6\%$ between 250 and 500 amps and a N.A.T.A. traceable Certificate of Meter Accuracy is supplied.
- Continuously variable multi turn current control enabling setting of any desired magnetising current value from 100 amps up to the rated maximum.
- Required current can be preselected and displayed on the ammeter prior to actual shot.
- Electronic timer controls the period of the magnetising shots for consistent repeatability. Pre-set to 1 second.
- Automatic push button diminishing AC demagnetising, with special circuitry to demagnetise difficult parts by the field cancellation method.
- Pneumatic HEAD clamp system for positive electrical contact. An air filter, regulator and gauge fitted to control and monitor the clamping pressure.
- 20 litre inspection fluid storage system with efficient jet agitation system suitable for oil or water based fluids.
- Magnetising cable takeoff points for special or off bench testing. Optional extension cable kit.
- Automatic electronic current overload.
- Electronic push button changeover from AC to HWDC and HEAD to COIL modes.
- All controls to IP56 rating and mounted on a pedestal at operator eye level.
- Residual current safety device is fitted to protect the operator in the event of an earth circuit fault, when handling 240 volt equipment connected to the machine.

ENHANCED WARRANTY

- 2 years on the general system including the electronics.
- 5 years on the magnetising transformer.

SPARE PARTS SUPPORT

- **LECTROMAX** guarantees a minimum 10 year stockholding of all spare parts necessary to maintain the equipment.

BENEFITS

- Australian manufacture backed by over 30 years experience in magnetic particle inspection equipment.
- High quality and ruggedly constructed. Stainless steel tank suitable for oil or water based inspection fluids.
- Latest state of the art electronic control system for long term reliability.
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- Optional on site commissioning and operator training.

OPTIONAL EQUIPMENT

- * **Light restricting hood**, fitted with an air extractor and light exclusion cowl. The hood is designed to fold back for overhead loading of parts.
- * **High intensity 125 watt blacklight hand lamp**, c/w adjustable swinging arms support mounted on the right hand head allowing the lamp position to be adjusted to illuminate the part being inspected when held between the heads, or positioned to direct the light downwards, for hand held inspection of small parts.
- * **Overhead combined black and whitelight** for general illumination. The whitelight is controlled by an illuminated switch. The assembly is mounted on cantilever arms so it can be swung clear during overhead loading of components.
- * **Work support steadies** to support circular components too long or heavy to be accommodated directly on the shelves of the heads, eg. crankshafts. The left hand steady is supported from the head to allow parking of the traversing coil clear of the heads during overhead loading. Both steadies are fitted with insulated roller bearings for ease of rotation of the part being inspected. The steadies will support parts between 50mm and 150mm diameter and up to 500kg weight.
- * **Small parts fixture** provides a convenient means of holding small parts between the contact heads.
- * **Coil transverse fixture** allows the coil to be moved up to 125mm transversely at 90° to the bed length, so that the inside of the coil, where the magnetising influence is at a maximum, can be positioned closer to the component under test. Recommended for 450 and 525mm coils.
- * **Additional work area grids** fitted to the rear section.
- * **Quality control kit** comprises:-
 - A magnetic flux test ring c/w central conductor, to check the relative effectiveness of the magnetic system during head shots.
 - A test tube & stand to check fluid particle concentration.
 - A field indicator to check residual magnetism after demagnetising.

Manufactured by -

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