



The **MAGMASTER 4000** is a general purpose heavy-duty bench type crack detector ideally suited to engine reconditioning and performance work, offering excellent capabilities with the minimum of cost.

Crankshafts, camshafts cylinder, heads, axles, gears and many other types of ferrous components can be quickly and thoroughly checked without special skills, by the magnetic particle inspection method.

In typical operation, a crankshaft is placed on the vee heads, flooded with inspection fluid whilst given a shot of magnetising current, and then examined for longitudinal cracks. The coil can be moved over the part to check for circumferential cracks.

A wide range of optional facilities is available to extend the versatility of the crack detector to suit virtually any testing requirement, including engine blocks and parts too large to be accommodated on the machine. With a unique manual clamp fixture, nuts, bolts, con rods, stub axles etc., can be easily tested.

### **BRIEF SPECIFICATIONS**

- Two axis magnetising.  
Current through part to locate longitudinal or lengthwise cracks, and coil magnetising to locate radial or transverse cracks.  
Quick changeover from heads to coil via front panel mode selector switch. The selected mode is indicated on the control display screen.
- 4000amps AC peak magnetising current.
- Accepts crankshafts up to 1750mm long and 300kg in weight.
- 350mm internal diameter coil, producing up to 10,000 peak ampere turns.  
Coil parks at left end of bed, clear of part for ease of loading onto the heads.
- Automatic push button electronic demagnetising.
- Thermal overload protection.  
Overload state indicated on display screen.

### **BENEFITS**

- Australian manufacture backed by over 30 years experience in magnetic particle inspection systems.
- High quality and ruggedly constructed.  
Stainless steel tank with integrated 20 litre fluid storage sump and pump agitation system.
- Reliable plug in electronic control system.
- 2 year warranty on electronic modules.  
5 year warranty on the magnetising transformer.
- Digital ammeter and controls at eye level.  
Ammeter holds display on for approx. 4 seconds for ease of verification.
- Complies with International standards for magnetic particle inspection - ASTM E1444-94a, AS1171, BS6072 and Electrical Safety Standard AS3100.  
Controls comply with IP65.
- Operator efficiency and work throughput enhanced by ease of operation.

**Quality at an Affordable Price**

**by LECTROMAX AUSTRALIA**

**P.T.O.**

## OPTIONAL EQUIPMENT

### OPTION 01    LIGHT RESTRICTING HOOD

Complete with sliding front curtain. The hood folds back for overhead loading of heavy parts.

### OPTION 02    BLACKLIGHT LAMP

High intensity 125 watt blacklight (ultraviolet) lamp for use with fluorescent inspection fluid.

### OPTION 03    EXTENSION MAGNETISING CABLE KIT

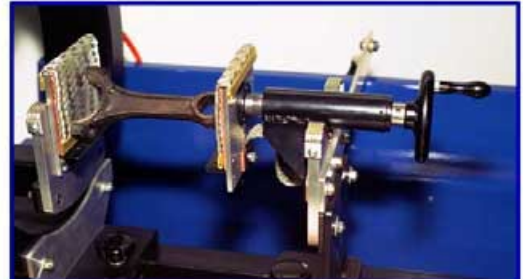
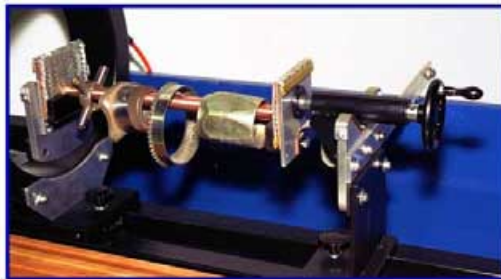
For off bench testing of engine blocks, or parts too large to be accommodated on the machine.

Comprises:        2 x 2.5metre cables with spring clamps to attach to part.  
                      1 x 5 metre cable to encircle the part or form a coil.

### OPTION 04    MANUAL CLAMP SYSTEM

Greatly increases the versatility of the machine to test a wide variety of small parts, which cannot be held in the VEE heads. Ideal for con rods, bolts, small shafts, pins, nuts, washers, gears, bushes etc.

Some typical examples are shown below.



### OPTION 05    QUALITY CONTROL KIT

Essential to maintain a high standard of quality control over the system to ensure maximum performance.

Comprises:-    \* A magnetic flux test ring, c/w central conductor, to check the relative effectiveness of the magnetic system during vee shots.  
                      \* A test tube and stand to check fluid particle concentration.  
                      \* A magnetic field indicator to check residual magnetism after demagnetising.

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SHIPPING DIMENSIONS    215cm L x 93cm W x 165cm H                      Weight Approx. 380kgs.

SUPPLY REQUIREMENTS    415V2PH 50Hz + 240V1PH 50Hz                      Other Voltages / Frequencies to order.

*The MAGMASTER 4000 is one of a wide range of crack detectors manufactured by LECTROMAX.*

*For larger capacity machines, request data on the MAGMASTER 4500 and MAGMASTER 5000.*

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