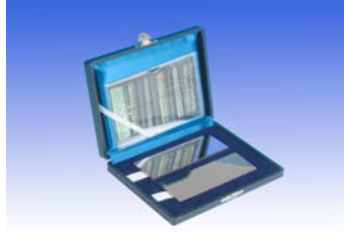


# PENETRANT TESTING

## ACCESSORIES



### Ni-Cr TEST PANELS

A range of process control panels having finely controlled crack depths to offer greater discrimination when comparing penetrant sensitivity. Matched pairs of panels are used to study the effects of process change.

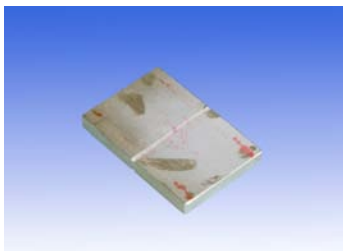
Available in pairs, in the following crack sizes 10 - 20 - 30 - 50 Microns. Kit one pair of each size.



### TAM PANEL

**Pt No 198055**

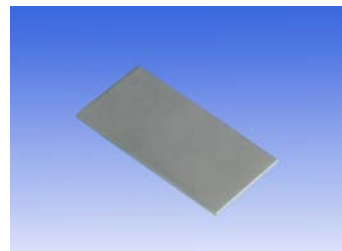
A stainless steel panel to monitor both sensitivity and washability of penetrants. It provides a grit blasted surface for washability tests and a chromed section with 5 star shaped defects ranging in size from course/fine. Meets the requirements of Pratt & Whitney (TAM 146040)



### ALUMINIUM TEST BLOCK

**Pt No 070C001**

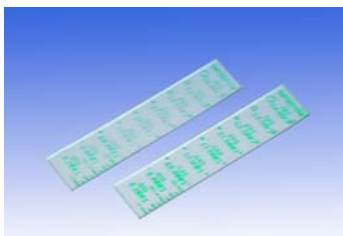
Cracked aluminium block compares SENSITIVITY of different penetrants or SENSITIVITY of new against old (working) penetrants. Complies with MIL-I-25135.



### STAINLESS STEEL TEST BLOCK

**Pt No 154400**

Monitors WASHABILITY of water washable or post emulsified penetrants. May be used repeatedly if thoroughly cleaned after each use.



### TAM CRACK COMPARATORS

**Pt No 514048**

A transparent crack comparator covering the Range 0.2mm – 4.6mm increments which also meets the requirements of Pratt & Whitney (TAM 135273)

**Pt No 514050**

A general purpose crack comparator having increments from 0.12mm – 3.0mm



### REFRACTOMETER

**Pt No 008M009**

A hand held optical instrument used for measuring the concentration of hydrophilic removers in water.

In operation, a small sample of the solution is applied to the prism face; readings are then taken by looking into instrument at the built-in scale

## **“Penecert” Penetrant Testing Service**

To obtain the maximum benefit from any penetrant inspection system, it is essential to ascertain that the quality of the penetrant materials used in the system have not deteriorated during use. That is why so many penetrant testing specifications require the regular testing of materials for certification.

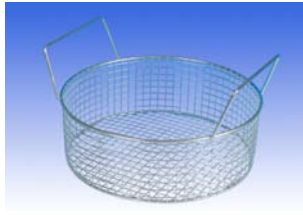
For further information about the Penecert service please contact the Sales Department.



### **CONTRAST CONTROL SPECTACLES**

**Pt No 017G001**

Specifically designed to eliminate long wave UV(A) and protect the eyes during excessive periods under ultraviolet lighting, these spectacles also reduce fatigue and provide an optimum contrast in viewing.



### **PROCESSING BASKET**

**Pt No 034B001**

A stainless steel processing basket used to take components through the penetrant process. They can be sub-divided to prevent part to part contact. Size 300mm diameter.



### **FILTER PAPER**

Used in the process to determine fluorescent brightness in penetrant system. Available in Grade 4 with sizes 4.25, 12.5 and 24cm diameter. Packed in boxes of 100.



### **WATER ONLY GUN**

**Pt No 004G015**

A gun with trigger action, used for water washing parts in the penetrant process. Comes with 2 inter-changeable nozzles to provide fine or coarse spray pattern.



### **WATER ONLY GUN**

**Pt No 004G001**

A wash gun used in the penetrant process to turn water supply into a spray.



### **AIR/WATER GUN**

**Pt No 004G003**

A combined air and water spray gun for washing of parts in a penetrant process. Water flow controlled with air introduced by trigger action to provide the spray.

**Pt No 518992**

Similar to above, with water controlled trigger action.

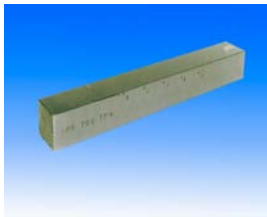


### **POLY SPRAY**

**Pt No 004G004**

An inexpensive spray unit for the application of penetrant. Can also be used with non-aqueous developer provided agitator ball is added.

## ACCESSORIES FOR MAGNETIC PARTICLE INSPECTION



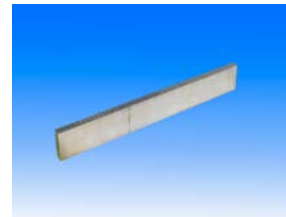
**MAGNETIC FLOW /COIL  
TEST PIECES**

**Pt No 026T002** RPS700  
**Pt No 026T042** BS6072



**CURRENT FLOW TEST PIECES**

0-1000A **Pt No 026T001** BS6072  
RPS700  
1000-3000A **Pt No.027T003** RPS700  
3000 5000A **Pt No 027T004** RPS700



**MAGNETIC PARTICLE TEST PIECE**

**Pt No 189838**  
Contains coarse and fine artificial surface and sub-surface defects in both directions. Meets or exceeds most specifications for artificial test specimens including MIL-STD-271



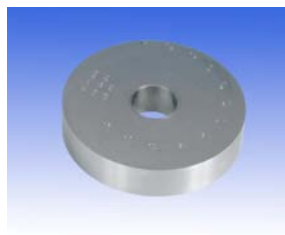
**TEST BLOCKS**

**Pt No 026T007**

Wet residual go/no go test block which provides a quick check on quality.

A wet continuous test block is also available under

**Pt No 026T006**



**KETOS TEST RING**

**Pt No 026T005**

The ketos ring has a number of artificial defects for both Dry Powder and Wet Method and meets ASTM E1444



**BERTHOLD PENETRANT METER**

**Pt No 008M006**

Checks magnetisation, penetration depth, quality of fluorescent suspension and magnetic field direction



**ASME FIELD INDICATOR**

**Pt No 008M003**

Used to gauge the strength and direction of the magnetic field in accordance with ASME Boiler and Pressure Vessel Code Section V



**FIELD INDICATOR**

**Pt No 008M001**

Magnetometer used to determine if a component is magnetised



**CALIBRATED FIELD INDICATOR**

**Pt No 008M002**

Scaled to +/- 20 gauss from zero for determining the level of residual magnetism to 5% of full-scale reading.

**Pt No 505056**

As above except scaled to +/- 10 gauss

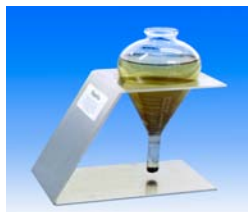


### PRINCIPLES OF M P I

**Pt No 020B001**

A 528 page book covering the theory, science art and practice of all types of magnetic particle inspection.

**Author C E BETZ**



### CENTRIFUGE TUBE & STAND

Essential items in ascertaining bath concentration.

Centrifuge Tube **Pt No 044C003**

Meets the requirements of ASTM D96 and BS4069.

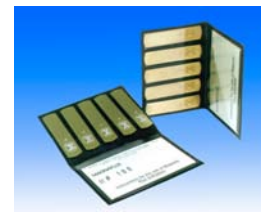
Centrifuge Stand **Pt No044C004**



### CONTACT BLOCK

**Pt No 023A007**

Clamps between the head and tailstock of the bench unit to allow prods, split coils, leeches etc. to be attached.



### MAGNETIC INDICATOR STRIPS

Used to provide a guide to the strength of the magnetic field at the precise point of their location.

Complies with BS4142 and BS6072.

**Pt No 008M004** Type I for general use.

**Pt No 008M005** Type II for aerospace work.



### MAGNAGLO APPLICATOR

**Pt No 004G006**

Replacement nozzle for bath applications. Attaches quickly to bath applicator hose.



### POLYSPRAY

**Pt No 004G004**

An inexpensive spray unit for the application of magnetic ink



### POWDER DISPENSER

**Pt No 008D003**

A powder 'puffer' for the application of dry magnetic powder.

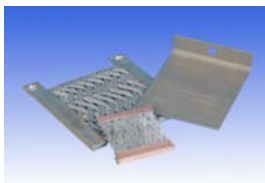


### POWDER BLOWER

**Pt No 58600**

Low cost gun for applying MAGNAFLUX dry powder in production conditions.

Regulated air-only blow off removes excess powder. Requires only 2 bar air supply

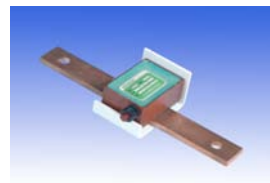


### CONTACT PADS

Bench testing units employ contact pads to improve electrical contact with the component

Replacement pads are available as follows:

Part No.	Area (mm)	Material
<b>031C003</b>	145 x 125	Copper braid – Neoprene
<b>031C010</b>	45 x 65	Copper braid
<b>031C012</b>	60 x 65	Brass mesh
<b>031C014</b>	96 x 125	Copper braid
<b>031C016</b>	100 x 120	Brass mesh
<b>031C020</b>	145 x 125	Copper braid



### QUICK BREAK TESTER

**Pt No 148335**

Quickly and accurately confirms function status of 'quick break' circuitry in FWDC magnetic particle units. Manufactured for compliance to ASTM E1444.

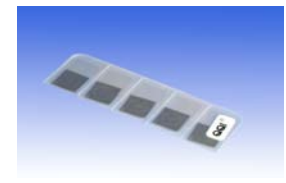


### CENTRAL CONDUCTORS

Kerosene resistant insulated copper bars used where components have through holes, thin wall or offset when insufficient current available for single shot.

**Pt No 028T002** 12mm dia x 300 mm long.

**Pt No 028T004** 25mm dia x 600 mm long.



### Q.Q.I.

Artificial flaw shim standards improve inspection reliability by verifying magnetic field direction and relative strength at all critical areas of a component. Ideal for multi-directional magnetisation.

**Pt No 519630** Model KSC-230 Standard

**Pt No 519631** Model KSC-4-230 Miniature

**Pt No 519632** Model KSC-234 Variable depth



### AUXILIARY ADAPTORS

**Pt No 030C009**

These auxiliary adaptors fit on to the head and tailstocks of the MAG50 bench units to assist in the handling of short/small parts.



### AUXILIARY ADAPTORS

**Pt No 030C026**

This auxiliary adaptor fits on to the head or tailstock of the MAG40 bench units to assist in the handling of short/small parts, also eliminates need for pneumatic clamping by having spring loaded clamp mechanism.



### STEADY REST

**Pt No 20955 A3**

MAG50 Bench mounted twin roller steady rest allows rotation of components.



### STEADY REST

**Pt No 20978 A1**

The twin rollers of the steady allow rotation of components. It is fixed directly to the headstock.