



## MAGNETIC PARTICLE INSPECTION UNIT SPECIFICATION

### ASAMS SYSTEM 12 UNDERWATER MAGNETIC PARTICLE INSPECTION SYSTEM

Produced following extensive research and development effort by ASAMS, the SYSTEM 12 underwater magnetic particle inspection unit has been developed as the ideal diver operated underwater MPI system for shallow water/tidal water use.



#### System Features:-

- ◆ Totally self contained
- ◆ 12 volt battery powered
- ◆ High intensity switchable UV Lamp
- ◆ Switchable 12V DC electromagnetic yoke
- ◆ Ink supply unit (optional)

Discussions with inspection diving contractors revealed a requirement for a fully portable underwater MPI unit capable of being used by divers in shallow water or tidal conditions. Ideally, the unit should NOT require any form of umbilical connection to the surface and should be capable of sustaining the inspection operation for up to 4 hours duration.

The result of this development is an inspection system powered from a 12 volt rechargeable battery unit and comprising battery/control unit, DC electromagnetic yoke and a high intensity UV light incorporating an arc discharge bulb for high ultraviolet content in the light produced. Magnetic ink can be supplied by attaching the optional ink dispensing unit or even from the surface.

The pressure housings for the battery/electronic control unit and the lamp are fabricated from anodised aluminium alloy and are pressure tested to a depth of 600feet. A unique power-saving feature of the unit is that both the lamp and the DC electromagnetic yoke can be switched on/off by the diver. The electronic control system used for the gas discharge bulb in the UV lamp enables maximum UV output to be produced within 30 seconds of switching on the lamp and the electromagnetic yoke incorporates a sealed switch unit giving the diver full operational control.

In the event that the optional dispensing system is used, the ink supply to the work piece can be incorporated into the handle of the UV lamp.



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## SPECIFICATIONS

ASAMS reserves the right to change product specifications, without prior notice, as part of an ongoing product improvement program.

### U/V LAMP

U/V Output:	2.3MW at 450mm
Voltage:	12V DC
Power Consumption:	35 Watts
Dimensions:	110mm diameter x 175mm overall length
Weight:	4kg (in air)
Depth:	1000ft



### YOKE

Voltage:	12V DC
Current Drawn:	2.5 Amps
Pull:	20kg at 150mm spacing
Dimensions:	480mm (w), 200mm (h), 220mm (l)
Weight:	3kg (in air)
Depth:	600ft with switch, 1000ft (surface operation)



### BATTERY

Power:	12V
Capacity:	12 Amp hour
Outputs:	2 (U/V lamp and Yoke/Charger)
Dimensions:	135 x 200mm x 230mm (h)
Weight:	9kg (in air)
Depth:	600ft



### INK SUPPLY (Optional)

Air or lever operated.  
Capacity: 0.5 / 1 litre



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