

# SYSTEM 12 TVC

Compact, battery-powered and ideal for use in shallow water or splash zone applications



The System 12 Subsea MPI unit is a compact, battery-powered system, ideal for use in shallow water or splash zone applications. Based on the field-proven System 3 unit, this portable system offers powerful performance from an exceptionally small package.

Diver control for the UV Lamp and Magnetic Yoke, and on-board power source, means no umbilical connection to the surface is required.

The System 12 is supplied with an intelligent, 3-stage battery charger for safe recharging of the power supply unit.

## Key Features

- Ideal for shallow water, tidal and splash zone applications
- Up to 4 hours operation
- DC Electromagnetic Yoke
- Powerful UV Lamp
- Varied ink delivery options: Air-Powered, Hand-Pump or Surface Feed (pressure tested to 100M water depth)
- UV Lamp and Subsea Unit pressure tested to 200M water depth
- Intelligent 3-stage battery charger
- Safe 12V DC power source
- Available as a lamp-only unit for use with Permanent Magnets
- Optional custom transit/storage case with foam insert for protection
- Full calibration certification provided, traceable to The National Physical Laboratory (NPL), UK.



*Various inks and consumables are available for use with all TVC MPI equipment; see overleaf for further details.*

## MPI CONSUMABLES

TVC can supply various inks and consumables for use with all TVC ASAMS Subsea MPI equipment. For further information on other consumables and MPI inspection accessories, please visit our website or contact our office.

### Mi-Glow® Circle Systems Inc.

Mi-Glow® Underwater 12 contains pre-mixed red particles and powered wetting agent for use in underwater inspection.

The fine to medium red particles in Underwater 12 can be used in visible light, UV light and blue light allowing them to detect a wider range of discontinuities.

Designed for use in a variety of underwater inspection applications including offshore structural welds, pipeline inspection, ship husbandry and to enhance underwater photography.

### NEOASTRA D.G.C.U.W. Johnson & Allen

A fluorescent high-grade magnetic particle ink, NEOASTRA D.G.C.U.W. Is a water-based concentrate formulated to give defined indications.

Defects can be viewed using a UV light with a surface intensity exceeding 1000µW/cm<sup>2</sup> Tests have confirmed defects can be viewed with up to 500 Lux of ambient light present, however, to comply with **BS EN ISO 9934-2:2015** levels must be restricted to 20 Lux.

NEOASTRA D.G.C.U.W. Is not classified as hazardous after dilution and is certified to meet the Sulphur and Halogen levels required by military, nuclear and ASME standards.

### Lumor® J 40 (W) Chemetall

A liquid concentrate diluted directly into water, Lumor® J 40 (W) gives an aqueous fluorescent magnetic ink ideal for the MPI inspection of ferromagnetic materials, structures and components.

The concentrate incorporates a water treatment system suspending the magnetic particles to wet the surface being tested and also includes corrosion inhibitors which work during and after testing.

Used extensively in the automotive industry for the detection of grinding or heat treatment cracks as well as forging bursts, laps, porosity, inclusions and other discontinuities.

Indications appear brilliant yellow-green when viewed under UV light (peak wavelength 365nm).

Complies with **BS EN ISO 9934-2**, **ASME Boiler & Vessel Code**, **ASTM E 1444-05**, **SAE** and **AMS 3044**.

The Validation Centre (TVC) Limited reserves the right to alter or change product specifications without prior notice. Images are representative of full optional additions installed; delivered equipment and software may vary depending on options purchased.



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