

A person in military-style clothing is using a Chelton dual-sensor metal detector in a field. The detector is a long-handled device with a circular search coil at the end. The person is walking on a gravel path, and the background shows a hilly, grassy landscape under a clear sky. The text "DUAL SENSOR SYSTEM" is visible on the detector's handle.

CHELTON

Why settle for just metal?

See everything using detectors equipped with both metal detection and Chelton's Ground Penetrating Radar sensors.

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The enemy has adapted

How reliable is your detection? You may be fast and accurate, but are you sure you picked up everything? The enemy has adapted and now hostiles are one step ahead with IEDs evading traditional metal detection.

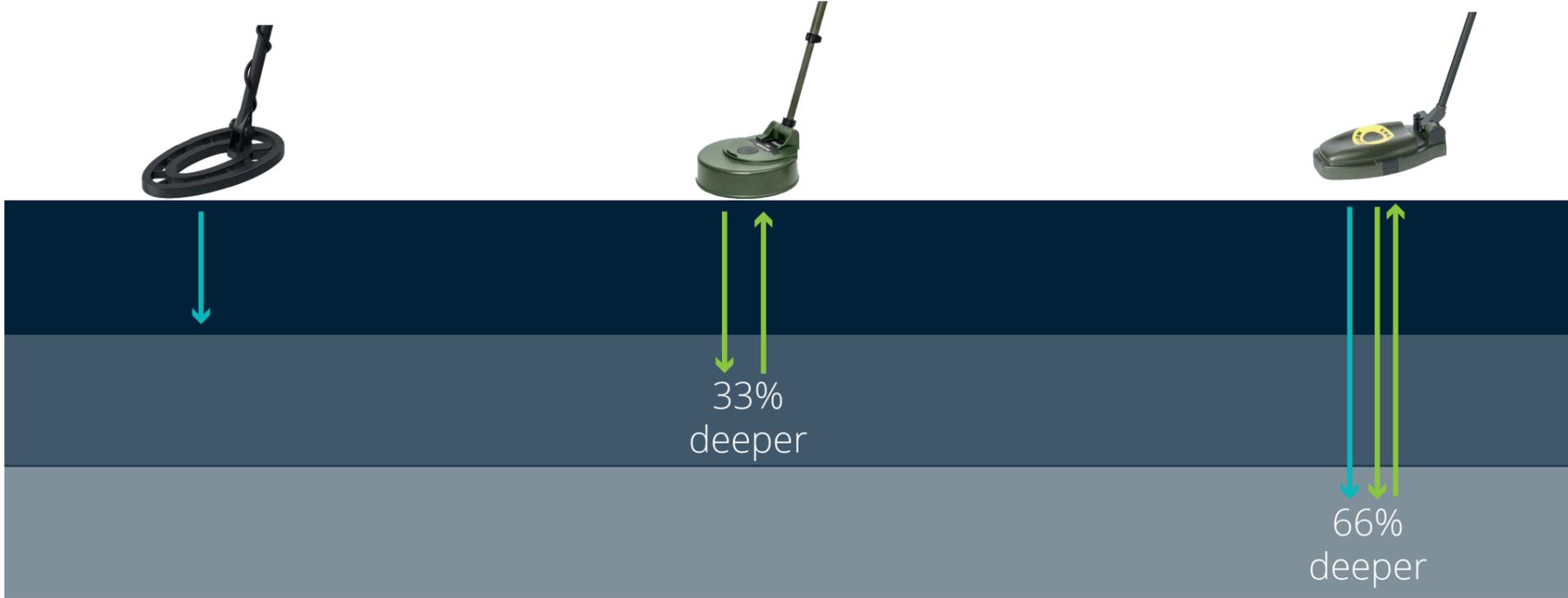
Chelton has leading edge expertise in developing advanced Explosive Ordnance Detection (EOD) systems using Ground Penetrating Radar (GPR) to support counter-IED and mine clearance operations. The high performing GPR sensors can detect objects that would typically evade metal detection such as those made from plastic or wood.

Modular and scalable, Chelton's GPR sensors can be integrated easily onto a range of tactical robots and vehicle platforms as well as handheld EODs.



How does GPR enhance detection?

Compared to metal detectors, Ground Penetrating Radar can detect both metal and metal free objects buried deep in the ground. The transmitter in the detector sends an electromagnetic signal into the ground which then echoes when it reaches an object. The echo signal is sent back to the receiving antenna to create an image of what it has detected and in some cases its depth, dimensions and composite material.



Our GPR sensors can be found on Vallon detectors, one of the world's leading manufacturers of Explosive Ordnance Detectors.

The HALO Trust, well known for mine clearance, use Vallon detectors with Chelton's GPR sensors to detect and clear mines from areas of conflict.



GPR Handheld Range

VMR3 Minehound Dual Sensor Detector

Using GPR, Minehound is ideal for the simultaneous detection of metal and metal-free objects. The use of carbon and glass fibre reinforced plastic makes it extremely rugged and durable.

- ✓ Easily noticeable alarm with audio, LED visual and haptic feedback
- ✓ Rugged mechanical design with high quality carbon telescoping carrying bar
- ✓ Detects minimum & metal-free objects
- ✓ GPR & MD



VMR3G Minehound Dual Sensor Detector

Built on the VMR3, VMR3G offers an integrated colour graphic display with easy to read information on the detected object as well as distinguishing between MD & GPR signals.

- ✓ Dual-sensor search head with MD and GPR
- ✓ Colour display with audio, visual and haptic feedback
- ✓ Rugged mechanical design with high quality carbon telescoping carrying bar
- ✓ Detects minimum and metal-free objects



VR1 Wirehound Cable Detector

Using GPR, Wirehound has been developed specifically to find explosive devices and their components including wires and cables typically used to detonate IEDs.

- ✓ Also locates classic GPR targets
- ✓ Detects wires and cables regardless of orientation
- ✓ High sensitivity detecting wires from 10cm in length
- ✓ Integrated LED display
- ✓ Easily noticeable alarm with audio, visual and haptic feedback



	VR1 Wirehound	VMR3 Minehound	VMR3G Minehound
Metal	✗	✓	✓
GPR	✓	✓	✓
Alarm signal	Visual (LED)/audio/vibration	Visual (LED)/audio/vibration	Visual (graphic display)/audio/vibration
Watertight	IP68, 1.5 m (1 h at 20 °C)	IP68, 1.5 m (1 h at 20 °C)	IP68 1,5 m (1 h at 20°C)
Case Dimensions	80.5 x 52 x 31 cm (31.69 x 20.47 x 12.20 ") *Tolerance ± 3 %	102 x 43 x 17 cm (40.15 x 16.93 x 6.70 ") *Tolerance ± 3 %	102 x 43 x 17 cm (40.15 x 16.93 x 6.70 ") *Tolerance ± 3 %
Ambient conditions	In accordance with MIL-STD-810F (F501.4-I, II, F502.4-I, II, F503.4-I, F506.4-III, F512.4-II, F516.5-IV)	In accordance with MIL-STD-810F (F501.4-I, II, F502.4-I, II, F503.4-I, F506.4-III, F512.4-II, F516.5-IV)	In accordance with MIL-STD-810F (F501.4-I, II, F502.4-I, II, F503.4-I, F506.4-III, F512.4-II, F516.5-IV)
Weight	Detector with/without standard battery 3.7 kg (8.15 lbs) / 3.24 kg (7.14 lbs) Basic package – Detector in case including standard scope of delivery 18.00 kg (39.68 lbs) *Tolerance ± 10 %	Detector with/without standard battery 4.0 kg (8.82 lbs) / 3.54 kg (7.80 lbs) Basic package – Detector in case including standard scope of delivery 14.60 kg (32.19 lbs)	Detector with/without standard battery 4.2 kg (9.25 lbs)/3.74 kg (8.24 lbs) Basic package – Detector in case including standard scope of delivery 14.80 kg (32.62 lbs) *Tolerance ± 10 %
Battery	1 x VAP3 7.4 V/5.4 Ah lithium polymer rechargeable battery Standard 4 x Mono LR20 1.5 V alkaline battery	1 x VAP3 7.4 V/5.4 Ah lithium polymer rechargeable battery Standard 4 x Mono LR20 1.5 V alkaline battery	1 x VAP3 7.4 V/5.4 Ah lithium polymer rechargeable battery Standard 4 x Mono LR20 1.5 V alkaline battery
Battery Operating Time	VAP3 lithium polymer rechargeable battery: About 10 h Alkaline batteries: About 4 h *Ambient temperature of about 20 °C, LR20: Varta Industrial, VAP3.	VAP3 lithium polymer rechargeable battery: About 8.5 h Alkaline batteries: About 6.5 h *Ambient temperature of about 20 °C, LR20: Varta Industrial, VAP3.	VAP3 lithium polymer rechargeable battery: About 7.5 h Alkaline batteries: About 3.5 h *Ambient temperature of about 20 °C, LR20: Varta Industrial, VAP3

What can Chelton offer?

Dual detection saving lives and time.

1. Trust the experts

We have decades of experience designing and developing GPR for mine and IED detection. We have experts on hand who can work with you.

1. Ongoing support

Our experts will be on hand at your base or site to get you to grips with the detectors. We can also offer support from the British MoD to come and train your search operators.

3. VR Training before going into the field

Chelton's innovative virtual-reality (VR) system supports the training of GPR-based detection technologies bringing a new level of flexibility and cost efficiency to traditional training techniques.



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