



The Field Clearance Set is a comprehensive solution designed for such engineering tasks, as demining, clearing the field of dangerous objects (e.g. armor piercing mines, anti-infantry mines, submunitions – cluster mines and grenades), as well as various types of grenades and ammunition.

The composition of the Field Clearance Set is tailored for the needs of a squad, or a team of sappers. The Field Clearance Set is a universal, fully modular set that meets the needs of the modern battlefield and helps to carry out tasks after the military operations are over.

The Field Clearance Set is designed for year-round operation at ambient temperatures from -30 °C to +50 °C in field conditions, during day and night, and with relative air humidity increased to 100%. It can be used in contaminated areas by soldiers wearing individual CBRN protective equipment.

The Field Clearance Set is fully compatible with the Combat Engineer Demining and Reconnaissance Set.

Due to its modular structure, the Field Clearance Set can be partially used by IED patrols of the Police Force, or by the Fire Fighting Service to delimit safety zones after receiving the report about discovery of dangerous materials, combat munitions or other military objects.

The warning signs delivered as part of the Field Clearance Set comply with the Polish Journal of Laws №125, Item 1048, and the international IMAS standard.

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The following table presents the full composition of the Field Clearance Set:

Name	Quantity (pcs.)
Mine-clearance Lightweight EOD Vest*	4
Lightweight EOD Suit for Pyrotechnicians and Sappers*	2
Metal Detector (Vallon VMC4)*	4
Mine-detection Prodder	4
Anchor Module	4
Plastic Anchor	8
Fuse crimper	1
Tripod	2
Marking Module	4
3 m Post (6 posts, 2 anchors, 2 flags)	2
Paracord (300 m)	1
100 m Measuring Tape Module	2
20 m Measuring Tape Module	4
Warning Sign (MINES)*/**	10
Warning Sign (UXO)*	10
Warning Sign (SAPPERS WORK NO ENTRY)*	2
Chemical Light (red)*	20
Chemical Light (green)*	20
Post with Anchor (taken from the Pass Marking Module)	12

* Optional quantity (as required by the Ordering Party)

** Choice of sign shape (triangular, square)





Characteristics:

The lightweight EOD suit is designed for all activities in the field of mining and pyrotechnics reconnaissance and to secure activities related to the neutralization of explosives and dangerous materials, including improvised explosives. The clothing does not limit the wearer's ability to use specialist equipment to conduct mining and pyrotechnics activities, including inspection mirrors, pyrotechnic manipulators, various types of metal detectors and equipment used in hook and line sets.

The suit can also be used to transport identified and non-hazardous unexploded ordnance, unexploded ordnance, dangerous items and incendiary agents from the place of their discovery to adapted means of transport and from means of transport to the place of destruction.

The suit can be used for demining and clearing areas where there is a likelihood of all types of mines, scattering ammunition, grenades, unexploded ordnance, and open field ammunition depots.

The suit is worn over outer clothing (field uniform) or protective clothing (anti-chemical suit) during everyday service.

General design:

- The suit is composed of a vest with attached sleeves, and trousers, after attaching the sleeves the vest is converted into a jacket.
- The vest is fastened at the front with Velcro (smooth adjustment and protection against accidental unfastening), equipped with resistant adjustable rubber pads on sides.
- Front, shoulders, and back of the vest have MOLLE/PALS bands sewed in.
- The vest has a rescue grip on the back at shoulder level (visible colour).
- The bottom of the back has built-in 'comfort pads' to protect the spine and back – the system alleviates the results of a fall or explosion. The system supports ventilation, improving thermal comfort for the user.
- The jacket features a system of fluorescent bands and Velcro spots for attaching badges.
- Sewed-in collar in the suit, with an option for attaching larynx protection cover.
- The adjustable trousers are fastened in the waist.
- The trousers have adjustable length and are equipped with a system of suspenders with buckles.
- Two-stage adjustment of legs with horizontal zipper bands.
- The vertical zipper bands in the legs ensure easier donning and doffing.

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- MOLLE/PALS bands sewed in at the front and on the back. Suit leg bottoms have a system of 5 cm wide fluorescent and reflexive bands.
- Suit legs have sewed-in rubber bands that improve comfort of use (kneeling, squatting).
- The lower abdominal and inguinal artery plate is located inside the trousers.
- Ballistic inserts in trousers are protected against shifting with sewed-in Velcro bands.
- The suit has pockets for inserting textile ballistic inserts in such a way, that the openings are located horizontally over the bottom edge of the vest, the top and bottom edge of trousers, the top edge of the larynx protective cover. Pockets are closed with Velcro bands, ensuring simple operation and preventing accidental opening during use.
- The suit can be worn over TYPE-3 chemical protective suit.
- Compatible with cooling systems.
- Textile ballistic inserts are sewed into a separate cover, preventing mechanical damage and protecting against humidity and sunlight.
- Suit sheathing is made of a fabric that allows easy maintenance with mild, commercially available detergents.



Sizes:

- M/L sheathing + ballistic inserts
- XL/XXL sheathing + ballistic inserts

The suits are adjustable within a single size.

Ballistic Resistance	
Protected Area	Resistance
Vest back	min. 600 m/s
Sleeves	min. 450 m/s
Collar	min. 600 m/s
Larynx cover	min. 600 m/s
Vest front	min. 600 m/s
Trousers front, thighs	min. 450 m/s
Trousers front, knees	2 inserts min. 450 m/s

Ballistic Resistance	
Protected Area	Resistance
Trousers front, shin	min. 450 m/s
Trousers front, lower abdomen	min. 450 m/s
Additional protection lower abdomen	min. 300 m/s
Trousers back - lumbar section	min. 300 m/s
Additional protection - lumbar section	min. 300 m/s
Trousers back	min. 300 m/s
Additional protection of auxiliary arteries	min. 300 m/s

Weight:

Maximum 20 kg*.

* Note: weight of M/L size suit without the helmet nor additional accessories.

The lightweight EOD suit for pyrotechnicians and sappers is sold together with helmet and visor.

Helmet	
Weight	
	approx. 1450 g
V50 acc. to STANAG 2920 (manufacturer data)	V50 = 600 m/s

Visor	
Weight	
	approx. 1470 m/s
V50 acc. to STANAG 2920 (manufacturer data)	V50 = 700 m/s

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The mine-clearance lightweight EOD vest is intended for conducting mine reconnaissance and pyrotechnic activities and clearing the area of dangerous objects. It provides a high level of protection when removing ammunition and anti-personnel mines, including scatterable mines and Improvised Explosive Devices. The main advantage is resistance to the main phases of the explosion, i.e. the thermal wave of the explosion, the impact wave and fragments resulting from the explosion. The mine-clearance lightweight EOD vest does not restrict freedom of movement and allows the use of elements of specialized equipment for mining and pyrotechnic activities, including inspection mirrors, pyrotechnic manipulators, various types of metal detectors, demining feelers and probes and equipment included in Hook & Line sets. The mine-clearance lightweight EOD vest is worn over outer clothing (field uniforms), rain gear and protective (anti-chemical) suits during everyday service.

Design and protective properties:

- Front/back torso protection
- Side Velcro fasteners
- Protection of the upper part of the arms
- 360° neck protection with internal collar
- Integrated face protection – a front collar compatible with various types of protective visors
- Protection of the lower abdomen, perineum and thighs through the use of a modular lower cover

Compliance with requirements:

- STANAG 2920, V50 = 450 m/s (for a fragment 1.102 g)
- IMAS 10.30

Key benefits:

- Good ventilation and thermal comfort in everyday use
- Compatibility with various types of helmets, face and neck protective visors
- Fire-resistant and waterproof materials, can be machine-washed at a temperature of up to 40°C
- Available in blue (UN) or any other colour indicated by the ordering party
- The lightweight EOD vest can be used in the temperature range from -20° C to +60° C
- The vest is produced in sizes XS – S – M – L – XL – XXL
- The weight of the vest is from XS to XL - from 3 kg to 4.5 kg, in size XXL up to 5 kg
- Comes with a transport bag in a colour agreed with the ordering party

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The ultra compact metal detector VMC4 is the successor to the proven VMC1 or "Gizmo", as being nick-named by its many pleased users. As such, it meets stringent requirements of military mine clearance, especially the requirements of special forces. The detector can be converted from an ultra-compact package into full-sized detector in just a few steps. Its slim search coil optimizes the use in dense vegetation. The combination of easy operation and maximum sensitivity leaves the user nothing to be desired. In part, this is because the VMC4 is ideal for all types of soils and shallow water.

Another special feature of this new detector generation is that rechargeable batteries can also be charged right in the device, either with a 110 – 240 V/50 – 60 Hz AC adapter or on a 10 – 30 V vehicle on-board power supply.

Features:

- Maximum sensitivity in detection of shallow objects
- Ultra compact design with high-quality carbon telescoping carrying bar
- Detection of material with low conductivity and wires
- Pinpoint button for a higher degree of location detection accuracy
- Integrated GNSS for automatic and manual storage of waypoints
- Infrared LED display for use with night vision devices and vibration alarm for covert operations
- Bluetooth® and Wi-Fi interface for cable-free access to the integrated web server
- Available in Olive or Sand Colour

-  Internal rechargeable battery
-  Bluetooth® interface for wireless data transfer
-  Wi-Fi for wireless data transfer
-  Automatic soil compensation for an effective false alarm reduction in mineralized soils
-  Integrated webserver for configuration, updates and data exchange
-  Integrated GNSS receiver
-  Detection of IEDs
-  Detection of cables and wires

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Wireless Communication

Bluetooth® and WLAN interface to integrated web server for device settings and updates.

Other Information

- Modern browser based user interface for simple operation – from smartphones to desktop computers
- Maximum security through password protection
- Management and download of saved GNSS waypoints as raw data (Raw) or for viewing in Google Earth (KML)
- Firmware update for updating the detector in just a few steps



Technical data and features are subject to change based on technological development

Sensor	Active search coil 27,3 × 12 cm
Alarm signal	Visual (LED) / audio / vibration
Watertight	IP68 (5 m, 1 h at 20°C) Search coil (additionally 1 m, 8 f at) 20°C)* * Search coil is suitable for longer detection in shallow waters.
Dimensions*	Bag - standard 28,5 × 12,2 × 6,5 cm Case 36,5 × 30 × 15,5 cm * Tolerance ±3%.
Ambient conditions	In accordance with MIL-STD-810G (501.5-I, II, 502.5-I, II, 503.5, 506.4, 512.4, 514.6-C-II, 516.6)
Weight*	Detector with / without standard battery 1,41 kg / 1,13 kg Basic package – Director in bag including 1,51 kg Basic package in case 3,55 kg * Tolerance ±10%.
Disposable / rechargeable battery	8 x Mignon LR6 1,5 V alkaline battery – Standard 8 x Mignon HR6 1,2 V NiMH rechargeable battery 2 x Mono LR20 1,5 V alkaline battery – Emergency operation 2 x Mono HR20 1,2 V NiMH rechargeable battery
Disposable / rechargeable battery operating time*	Alkaline batteries: about 7 h NiMH rechargeable batteries (2700 mAh): about 12 h Alkaline batteries for emergency operation: about 3 h NiMH rechargeable batteries (10,000 mAh): about 12 h * Ambient temperature of about 20°C, LR6/LR20: Varta Industrial, HR6/HR20: NiMH rechargeable batteries.

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