



Combat Engineer Demining and Reconnaissance Equipment is a complete solution intended for field engineering activities. It is adapted for use by units and subunits of engineering troops throughout the year, at an ambient temperature from  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ , in all weather conditions, with a relative air humidity increased to 100%. The end user actively participated in the process of developing the equipment, and the product itself received a positive opinion from the Military Institute of Engineering Technology. The equipment includes a total of over 130 elements, including:

- Mine detector module with a set of mine-detection prodders with spikes
- Anchor module with a cord, reel, pulley, a carabiner and a shredder
- Commander's module with handheld GPS, waterproof notebook, rangefinder, compass and dermatograph
- 100 m and 20 m measuring tape modules with reels, pins, carabiners and cases
- Marking module with flag stands and hangers
- Additional equipment: 45 l engineer backpack, flashlight, megaphone, mine tape warnings, tripod with head, inspection mirror and many more.

The complete set of Combat Engineer Demining and Reconnaissance Equipment includes:

NO.	NAME	NUMBER OF MODULES IN SET	NUMBER OF ELEMENTS IN MODULE
1.	<b>TRANSPORT MODULE</b>	1	-
	45 L ENGINEER BACKPACK		7
	60 L TRANSPORT BAG		2
	ADMIN POUCH		2
	TRANSPORT BOX		5
2.	<b>EXPLOSION INITIATION MODULE</b>	1	-
	IGNITER		1
	EXPLOSION INITIATION MODULE CASE		1
3.	<b>GRID BUILDING MODULE</b>	2	-
	MULTITOOL		1
	DETONATOR CASE FOR 25 DETONATORS		1
	CUTTING PAD		1
	FOLDING KNIFE		1
	SPOOL	1	



# COMBAT ENGINEER DEMINING AND RECONNAISSANCE EQUIPMENT

	INSULATING TAPE		2
	GRID BUILDING MODULE CASE		1
	PLASMA LIGHTER		1
<b>4.</b>	<b>100 M MEASURING TAPE MODULE</b>	<b>3</b>	<b>-</b>
	100 M MEASURING POLYESTER TAPE WIDTH: 10 MM		1
	LOCKING CARABINER		2
	100 M TAPE MEASURING TAPE REEL		1
	100 M MEASURING TAPE MODULE CASE		1
	TAPE PINS		5
<b>5.</b>	<b>20 M MEASURING TAPE MODULE</b>	<b>3</b>	<b>-</b>
	20 M MEASURING POLYESTER TAPE WIDTH: 10 MM		1
	LOCKING CARABINER		2
	20 M TAPE MEASURING TAPE REEL		1
	20 M MEASURING TAPE MODULE CASE		1
<b>6.</b>	<b>DETECTOR MODULE</b>	<b>6</b>	<b>-</b>
	MINE DETECTOR*		1
	MINE-DETECTION PRODDER		1
	PRODDER SPIKE		5
	FLAT BRUSH 40 MM		1
	DETECTOR MODULE CASE		1
	RED RIBBON FOR CALIBRATOR		1
<b>7.</b>	<b>ANCHOR MODULE</b>	<b>4</b>	<b>-</b>
	PARACORD 50 M, DIA. 5 MM		1
	SMALL REEL		1
	LOCKING CARABINER		1
	PLASTIC CARABINER		2
	SELF-DISCONNECTING PULLEY		1
	ANCHOR MODULE CASE		1
	STEEL ANCHOR		1
	PULLEY ADAPTER		1
	FIXED PULLEY		1
	ANCHOR SHREDDER		1
<b>8.</b>	<b>MARKING MODULE</b>	<b>6</b>	<b>-</b>
	FLAG STANDS		15
	MARKING MODULE HANGER WHITE		15
	MARKING MODULE HANGER RED		15
	MARKING MODULE CASE		1
<b>9.</b>	<b>COMMANDER'S MODULE</b>	<b>1</b>	<b>-</b>
	HANDHELD GPS		1
	WATERPROOF NOTEBOOK		1
	RANGEFINDER		1
	RANGEFINDER CELL CR2 (10 P = 2 PCS.)		1
	BASEPLATE COMPASS		1



	COMMANDER'S MODULE CASE		1
	WATERPROOF PEN		2
	DERMATOGRAPH		2
	PHOTOGRAPHIC SCALE RULER		1
10.	<b>PASS MARKING MODULE</b>	<b>2</b>	-
	PLATE		6
	POST WITH SPIKE		6
	LIGHT MARKING WHITE		6
	LIGHT MARKING IR		6
	PASS MARKING MODULE CASE		1
11.	<b>ENERGY MODULE</b>	<b>1</b>	-
	CELLS FOR ELECTRIC DEVICES		2
	BATTERY CHARGER (8 CHANNELS)		2
	POWERBANK		1
	ENERGY MODULE CASE		1
	CAR CHARGER WITH TWO USB SOCKETS		2
	BATTERY ORGANIZER		1
12.	<b>DRONE'S MODULE*</b>	<b>1</b>	-
	DRONE WITH EQUIPMENT		1
	DRONE'S MODULE CASE		1

	FUNCTIONAL ELEMENTS	NUMBER OF ELEMENTS IN SET
13.	SMALL REEL	1
	SMALL REEL CASE	1
	SPOOL	2
14.	2-WIRE CABLE 2 × 0.75 MM	2
	LARGE REEL	2
	LARGE REEL CASE	2
15.	3 M FOLDING POLE	4
	3 M POLE SPIKE	8
	FLAG	8
	POLE, FLAGS AND SPIKES CASE	4
16.	LARGE INSPECTION MIRROR	2
	CLEANING CLOTH FOR LARGE INSPECTION MIRROR	2
	LARGE INSPECTION MIRROR JOINT	2
	LARGE INSPECTION MIRROR CASE	2
	LARGE MIRROR ILLUMINATING ADAPTER	2
	ADAPTER BETWEEN 3 M POLE AND LARGE MIRROR	2
17.	SMALL INSPECTION MIRROR	4
18.	REFLECTIVE BAND	7
19.	HEADLAMP	7
	HEADLAMP POCKET	7
20.	FLASHLIGHT	4



# COMBAT ENGINEER DEMINING AND RECONNAISSANCE EQUIPMENT

21.	5 M MEASURING TAPE	2
22.	MEGAPHONE	1
23.	MINE TAPE WARNINGS	1
	MINE TAPE WARNINGS ORGANIZER	6
24.	FOLDING SHOVEL	4
25.	FOLDING SAW	1
26.	MULTI-PURPOSE CROWBAR	2
27.	TELESCOPIC BOLT CUTTERS 360–450 MM	1
28.	ANCHORS	20
	BAG FOR 10 ANCHORS	2
29.	WORK GLOVES	7
30.	CUTTING PAD	4
31.	MULTITOOL	4
32.	TACTICAL LANYARD	4
33.	WIMBLE	1
	WIMBLE CASE	1
34.	PLASTIC ANCHOR	12
	BAG FOR 3 PLASTIC ANCHORS	4
35.	STEEL ANCHOR	1
	BAG FOR STEEL ANCHOR	1
36.	PLASMA LIGHTER	4
37.	FOLDING KNIFE	4
38.	TACTICAL LANYARD	4
39.	MINING TOOLS ORGANIZER	4
	REPAIR KIT CASE	1
	WIRE BRUSH – SET OF 3 PCS	1
40.	KNIFE SHARPENER	1
	SCRUB BRUSH	4
	REPAIR MATERIAL 1 M <sup>2</sup>	1
	MICROFIBER WIPES	3
	GLUE	1
41.	TRIPOD HEAD	1
	TRIPOD FEET	3
	TRIPOD CASE	1
	TRIPOD STRAP	1
42.	TACTICAL SKETCHBOOK A4	1
43.	TAPE PINS	6
44.	NATO MILITARY TEMPLATE	1
45.	HOOK WEIGHT	1
46.	INDIVIDUAL MASKING SCREEN	8
47.	FIGURE EIGHT CLASP FOR INDIVIDUAL MASKING SCREEN	2

	SET OF CONSUMABLES	NUMBER OF ELEMENTS IN SET
48.	PRODDER SPIKE	60
49.	300 M BRAIDED CORD 3 MM	1
50.	REPAIR TAPE	10
51.	INSULATING TAPE	15
52.	450 MM CLAMPS	200
53.	2.5 KG TIE WIRE 1.2 MM	1
54.	ELECTRICAL QUICK-COUPLERS	100
55.	BAG FOR 100 ELECTRICAL QUICK-COUPLERS	100
	ELECTRICAL QUICK-COUPLERS	1
56.	BAG FOR 100 ELECTRICAL QUICK-COUPLERS	25
57.	400 × 400 MM STRING BAG WITH A FASTENER	200
58.	DISPOSABLE GLOVES, BLACK, SIZE S	200
59.	DISPOSABLE GLOVES, BLACK, SIZE M	200
60.	DISPOSABLE GLOVES, BLACK, SIZE L	10
61.	EXPANDER WITH HOOKS BLACK/KHAKI DIA. 4, LENGTH 80 CM	12
62.	RED SPRAY PAINT	5
63.	5 M DOUBLE SIDED FOAM TAPE 50 MM	140
	CONNECTORS FOR EXPLOSIVE CORD	1
64.	BAG FOR 140 CONNECTORS FOR EXPLOSIVE CORD	10
	LOCKING CARABINER	1
65.	BAG FOR 10 LOCKING CARABINERS	10
	PLASTIC CARABINER	1
66.	BAG FOR 10 PLASTIC CARABINERS	1
67.	PARACORD 300 M, DIA. 5 MM	50
	LIGHT MARKING WHITE	50
	LIGHT MARKING IR	2

\* Equipment items marked with an asterisk are subject to separate valuation.

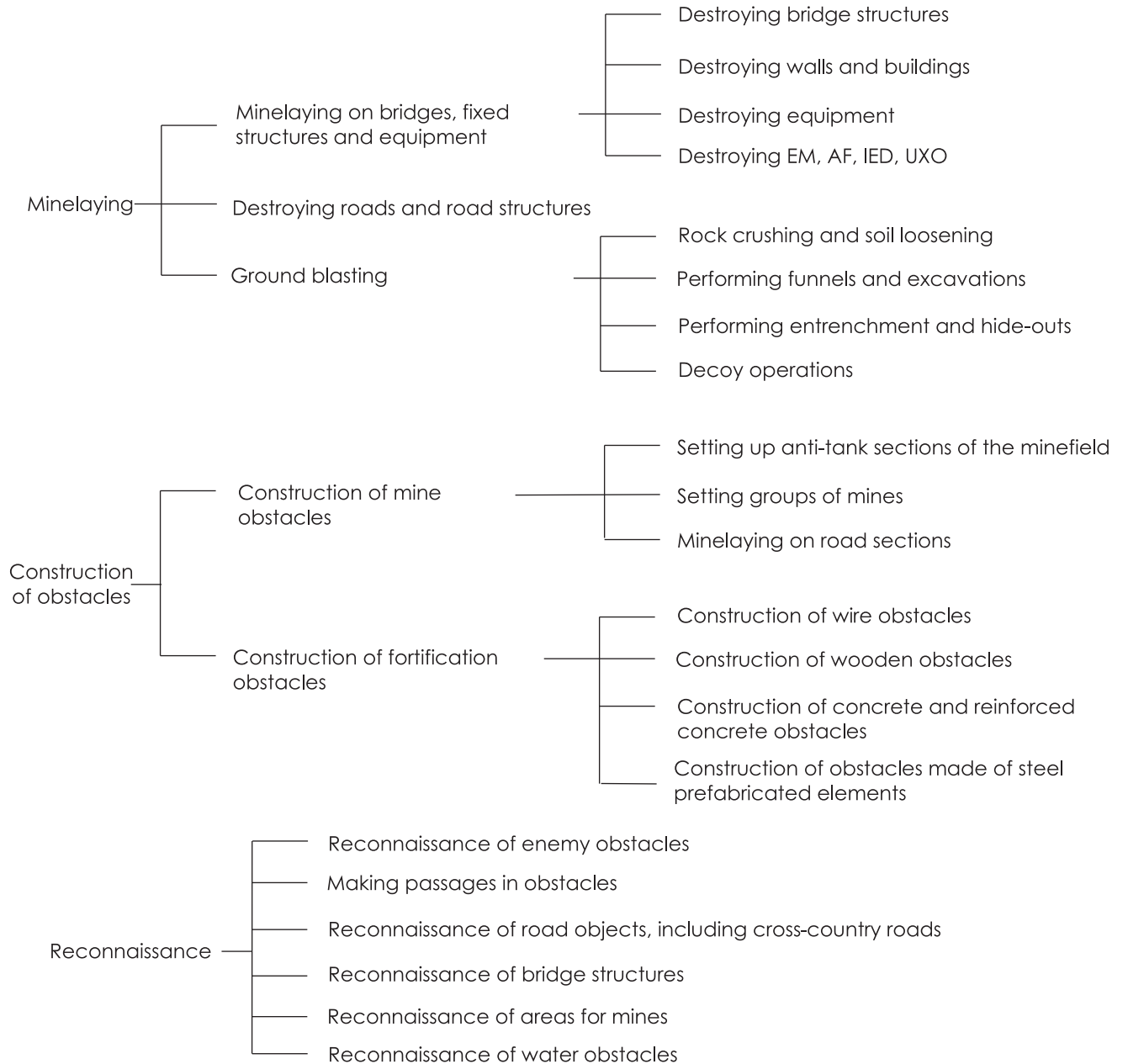




# COMBAT ENGINEER DEMINING AND RECONNAISSANCE EQUIPMENT



The set completed in this way enables the performance of the following tasks to be secured:



**Mine detector compliant with NATO standard – features:**

- Internal rechargeable batteries
- Bluetooth and Wi-Fi interface for wireless data transmission
- Automatic compensation function effectively reduces the number of false detections in highly mineralized soils
- Built-in web server for configuration, update and data transmission
- Built-in GNSS receiver
- Detection of improvised explosive devices (IEDs)
- Detection of wires and cables



**Mine detector – specifications**

<b>Sensor</b>	Active type, dimensions 27.3 x 12 cm
<b>Alarm</b>	Visual (LED) / audible / vibrating
<b>Tightness class</b>	IP68 (5 m, 1 h at 20°C)
<b>Dimensions</b>	With case – 28.5 x 12.2 x 6.5 cm In box – 36.5 x 30 x 15.5 cm
<b>Operating conditions</b>	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)
<b>Weight</b>	Detector with standard battery / without battery – 1.25 kg / 1.03 kg Detector in case with standard accessories – 1.35 kg Detector in box – 3.36 kg
<b>Operation time</b>	Alkaline batteries – about 7 h NiMH batteries (2,700 mAh) – about 12 h Alkaline batteries in emergency mode – about 3 h NiMH batteries (10,000 mAh): about 12 h





**LUBAWA S.A. Staroprzygodzka 117, 63-400 Ostrów Wielkopolski**

 **+48 607 140 930**  
**+48 56 699 4009**

 **[www.lubawa.com.pl](http://www.lubawa.com.pl)**

 **+48 62 737 5708**

 **[export@lubawa.com.pl](mailto:export@lubawa.com.pl)**