

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

Contract title: Supply of equipment for demining and destruction of unexploded ordnance

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Publication reference: NEAR/BEG/2023/EA-OP/0149

LOT 1 – Supply of humanitarian demining equipment

Columns 1-2 should be completed by the contracting authority

Columns 3-4 should be completed by the tenderer

Column 5 is reserved for the evaluation committee

Annex III - the contractor's technical offer

The tenderers are requested to complete the template on the next pages:

- Column 2 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
- Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words ‘compliant’ or ‘yes’ are not sufficient)
- Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.

Unless otherwise specified, the requirements in these Technical Specifications are presented as a minimum standard which the offered goods must meet.

1. No.	2. Mandatory specifications	3. Offered specifications	4. Notes, remarks, reference to documents	5. Notes of the evaluation committee
1	<p>UXO contaminated location survey kit Quantity: 5 sets Note: For teams for UXO-contaminated sites to enable surveys and to search, locate, identify, mark and / or mitigate the dangers of unexploded ordnance (UXO)</p> <p>1.1. Laser rangefinder Required technical characteristics: - Optical magnification should be ≥ 5 x - Field of view should be $\geq 5^\circ$ - Units of measure should be expressed in degrees - To provide a minimum of 2000 measurements in all conditions of distance measurement with one power source - Mass with the battery should be less than 0,6 kg - To enable safe operation of the set in accordance with the instructions and conditions of use</p> <p>1.2. Binoculars Required technical characteristics: - optical magnification should be ≥ 6 x - Field of view should be $\geq 8^\circ$ - Mass should be less than 0,6 kg - To enable safe operation in accordance with the instructions and conditions of use</p> <p>1.3. Compass Required technical characteristics: - the division of the reading scale be expressed in degrees and thousands - Mass should be less than 0,3 kg - To enable safe operation in accordance with the instructions and conditions of use</p>			

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	<p>1.4. GPS Required technical characteristics:</p> <ul style="list-style-type: none"> - Should withstand a fall on a hard surface from a height of 2 m - To be reliable in working in the temperature range of -40° to +50° - Autonomy of work with the battery should be ≥ 3 hours - To enable safe operation in accordance with the instructions and conditions of use 			
	<p>1.5. Battery Operated Flashlights Required technical characteristics:</p> <ul style="list-style-type: none"> - Preparation time for work should be ≤ 1 min. - The autonomy of the device should be at a volume of 600 lumens continuously for 1.3 hours - The projection of the light beam should be at least 200 meters 			
	<p>1.6. Marking strips and signs Required technical characteristics:</p> <ul style="list-style-type: none"> - Preparation time for work should be ≤ 5 min. - Able to be used easily and simply in field conditions. - To enable safe operation in accordance with the instructions and conditions of use. 			
	<p>1.7. Gloves Required technical characteristics:</p> <ul style="list-style-type: none"> - Gloves should be sewn from leather material and to protect the hands from sawdust, pieces of metal, glass and other materials when finding, removing and destroying mines MED, UXO и IED - Should be made of a material that is not rigid and that allows flexibility 			

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	1.8. Backpack Required technical characteristics: <ul style="list-style-type: none"> - To provide space for parts of the kit - The arrangement of the partitions must be made in such a way that all the individual elements can be removed directly and that no parts of the set are damaged during transport 			
2.	Humanitarian Demining Kit Quantity: 25 sets Note: individual kit for cleaning operations of trails and areas contaminated with UXO on all types of land. 2.1. Probes Required technical characteristics: <ul style="list-style-type: none"> - Length should be ≤ 500 mm - Weight should be $\leq 0,5$ kg - Preparation time for work should be ≤ 3 min. - Should be able to be used easily and simply in field conditions - made of solid material that does not bend or twist when used in terrain survey 2.2. Set of hooks and pull ropes Required technical characteristics: <ul style="list-style-type: none"> - The ropes should be made of hemp or synthetic fiber - Length of rope ≥ 30 m - Hooks should be made of solid material - To enable safe operation in accordance with the instructions and conditions of use 2.3. Two-handed scissors Required technical characteristics: <ul style="list-style-type: none"> - Mass should be less than 0,5 kg - To enable safe operation in accordance with the instructions and conditions of use 			

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	2.4. One-handed scissors Required technical characteristics: <ul style="list-style-type: none"> - Mass should be less than 0,3 kg - To enable safe operation in accordance with the instructions and conditions of use 			
	2.5. Hand saw Required technical characteristics: <ul style="list-style-type: none"> - Length of the hand saw should be $\leq 0,5$ m - Mass should be less than 0,5 kg - To enable safe operation in accordance with the instructions and conditions of use 			
	2.6. Harchet Required technical characteristics: <ul style="list-style-type: none"> - Should be made in a combination of wood and metal (wooden handle, metal blade) - Mass should be less than 0,5 kg - Able to be used easily and simply in field conditions 			
	2.7. Non-magnetic scoop – spade Required technical characteristics: <ul style="list-style-type: none"> - Should be made of non-metal materials - Mass should be less than 0,5 kg - To be collapsible and suitable for packaging - Unfolded it should be less than $\leq 0,5$ m long - Able to be used easily and simply in field conditions 			
	2.8. Non-magnetic knife Required technical characteristics: <ul style="list-style-type: none"> - The weight of the knife should not exceed 150 gr - To be folding according to the construction - The handle of the knife should be made of a material that prevents slipping in the hand 			

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	<p>2.9. Hammer Required technical characteristics:</p> <ul style="list-style-type: none"> - To be made in a combination of wood and metal (wooden handle, metal head) - Mass should be less than 0,3 kg - Able to be used easily and simply in field conditions 			
	<p>2.10. Pliers Required technical characteristics:</p> <ul style="list-style-type: none"> - Should be combined and enable multipurpose use - Able to be used easily and simply in field conditions 			
	<p>2.11. Knee protective pads Required technical characteristics:</p> <ul style="list-style-type: none"> - The knee pads should be made of a material that will provide comfort at work (when kneeling) and protection from blows and crushing - Able to be used easily and simply in field conditions 			
	<p>2.12. Protective gloves Required technical characteristics:</p> <ul style="list-style-type: none"> - Gloves should be sewn from leather material and to protect the hands from sawdust, pieces of metal, glass and other materials when finding, removing and destroying mines MED, UXO и IED - Should be made of a material that is not rigid and that allows flexibility 			
	<p>2.13. Protective goggles Required technical characteristics:</p> <ul style="list-style-type: none"> - Should enable safe work with the use of a helmet with a visor, - Weight of the device should be ≤ 500 gr, - Should enable eye protection from fragments from UXO and MED to 5 mm or 0,5 gr 			
	<p>2.14. Ribbon 25 m Required technical characteristics:</p> <ul style="list-style-type: none"> - Preparation time for work should be ≤ 5 min. - Able to be used easily and simply in field conditions. - To enable safe operation in accordance with the instructions and conditions of use. 			

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	<p>2.15. Ribbon 50 m Required technical characteristics: - Preparation time for work should be ≤ 5 min. - Able to be used easily and simply in field conditions. - To enable safe operation in accordance with the instructions and conditions of use.</p> <p>2.16. Mine markers Required technical characteristics: - Preparation time for work should be ≤ 5 min. - Able to be used easily and simply in field conditions. - To enable safe operation in accordance with the instructions and conditions of use.</p> <p>2.16. Backpack Required technical characteristics: - To provide space for parts of the kit - The arrangement of the partitions must be made in such a way that all the individual elements can be removed directly and that no parts of the set are damaged during transport</p>			
3.	<p>Metal detector (1m) Quantity: 25 sets Note: detection of unexploded ordnance (Ferro magnet objects) in soil and under water at minimum depths up to 1 m Set composition:</p> <ul style="list-style-type: none"> • locator with probe (compact unit) • headphones • battery charger • Hardside suitcase for packing devices (hard plastic, and the like) • instructions for use and maintenance in Serbian <p>Required technical characteristics: - Power supply: 2 alkaline batteries of 9 V - Autonomy of work: more than 30 hours - Operating temperature range: from -20° to +50° C - Output: audio - sound signal, tone frequency around 40 Hz, which increases or decreases depending on the intensity of the magnetic field</p>			

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	<ul style="list-style-type: none"> - Measuring range: at least 4 measuring ranges - Water tightness: the probe should be watertight at least 50 cm from the top of the probe to the body of the locator - Device weight: up to 2 kg - Device length: the total length of the device should be within 70 cm to 110 cm - Material and construction: aluminum, solid construction, modular and without moving parts - Probe sensor range: 500 mm ±100 mm 			
4.	<p>Metal detector Quantity: 6 sets Note: detection of unexploded ordnance (ferromagnetic objects) in soil and under water at greater depths (up to 50 m) Basic characteristics of the device control unit:</p> <ul style="list-style-type: none"> - the control unit box must have a probe cable connector, a headphone jack, on the upper part a display, i.e. visualization element and command elements, - the control unit must have a thread for the support rod, which on the other side is wound on the battery box, - command unit weight up to 2,5 kg, - weight of the support bar up to 0,6 kg, - the control unit should have a minimum of 6 measuring fields (from 0-3 nT to 0-10 000 nT) <p>Set composition:</p> <ul style="list-style-type: none"> - Hard cover case for packing the device, - Command unit - electronic block, - Search probe with cable, - Support rod with contact set, - Box - battery housing, - Rechargeable batteries 1,5 V IEC LR14 – 4 pcs, - Battery charger, - Device carrying strap, - Accessories - headphones, two wrenches, screwdriver, battery cable, extension cable with a minimum length of 10 m and a cable with a minimum length of 30 m with seals in a hard plastic box. - Instructions for handling and basic maintenance in Serbian 			

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	<p>Required technical characteristics:</p> <ul style="list-style-type: none"> - Measuring range: ± 10000 nT - Resolution: $< 0,2$ nT - Measurement error: $< 2\%$ in the working range ± 10000 nT - Probe length: from 700 mm to 900 mm - Probe diameter: from 30 mm to 40 mm - Probe weight: from 0,6 to 0,8 kg - Length of the main probe cable: from 600 mm to 800 mm - Additional extension cable for probe with seal: <ul style="list-style-type: none"> • Minimum length 10 m – 1 pcs, • minimum length 30 m – 1 pcs - Locator weight (complete): up to 5 kg - Locator weight (gross - with suitcase): up to 11 kg - Operating temperature range: from -20 to $+50^{\circ}$ C - Power supply: 4 rechargeable alkaline batteries 1,5 V IECLR14 - Autonomy of work with the kit IEC LR14 alkaline batteries: <ul style="list-style-type: none"> • work with interruptions > 36 h, • uninterrupted operation > 35 h, - Signal display: Multi-functional digital display - Protection against moisture and dust of the control unit: IP 57 - Packaging of locators: solid sides with internal protective coating of solid sponge for device and components (hard plastic, etc.) 			
5.	<p>Non-magnetic tool kit Quantity: 3 sets Note: for use as an aid in demining unexploded ordnance.</p> <p>Required technical characteristics:</p> <ul style="list-style-type: none"> - to be made of non-magnetic material, alloy of copper and beryllium, which does not spark, does not magnetize, is maximally durable and has anti-corrosive properties - all tool components should match Standardization Agreement (STANAG) 2897, - set weight 27 ± 1 kg - suitcase dimensions: $63.5 \times 49.5 \times 36.8 \pm 1.5$ cm 			

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	<p>Set composition:</p> <ul style="list-style-type: none"> - suitcase with handle for packing tools made of solid material – plastic - 4 internal elements - cartridge case in which tools are packed, made of hard plastic - instructions for handling and basic maintenance in Serbian <p>5.1 Cartridge 1:</p> <ul style="list-style-type: none"> - Allen keys (metric) - 1,5; 2; 2,5; 3; 4; 5; 6; 8 и 10 mm - Allen keys (inch) – 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8 и 1/2 inch - t- continuation or so-called Sliding head lever (32 cm long) - extensions of 10 cm and 20 cm and Karadan extension of 65 mm - handle for Gedora with mechanism - ratchet (26 cm long) - set of Gedora - handles - socket (metric) - 12 sizes: 10, 11, 12, 13, 14, 15, 17, 19, 22, 24, 27 и 30 mm - set of Gedora - handles - socket (inch) – 12 sizes: 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1, 1 1/16, 1 1/8 inches 			
	<p>5.2 Cartridge 2:</p> <ul style="list-style-type: none"> - marking tools 190 mm - knife 180 mm - scissors 220 mm - filling and stripping knife 30 x 200 mm - wire brush 350 x 56 mm - set of Phillips screwdrivers (screwdrivers) dimensions 3 x 75, 4 x 100, 6 x 100, 8 x 150 и 10 x 200 mm - screwdriver bits 6 x 150, 8 x 150 и 10 x 150 mm Philips screwdrivers 1,2,3 и 4 			
	<p>5.3. Cartridge 3:</p> <ul style="list-style-type: none"> - tweezers 200 mm - saw frame 540 mm - saw blade 300 mm - combined pliers 200 mm - cutters/cutting pliers 180 mm и 165 mm - pointed pliers 180 mm - rounded pliers 180 mm - flat pliers 180 mm 			

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	5.4. Cartridge 4: - adjustable wrench 150 и 300 mm - adjustable tubular wrench 355 mm - hammer with cross profile 500 g - hammer 1000 g - flat chisels 22 x 150 and 24 x 250 mm - bar 450 mm - crow bar 450 mm - tubular wrench			
6.	A set of hand and engineering tools for general purposes Quantity: 25 Sets Note: for work during the preparation, installation and removal of mines and other works related to demining and destruction of UXO. The tool is on the Gerber 600 multifunction tool and provides the operator with UXO removal, a compact single-handed multifunction tool for resolving a range of situations.			
	Declared characteristics: - total length of the tool kit 16.8 ± 0.5 cm - length of assembled (closed) tools 12.8 ± 0.5 cm - made of quality stainless steel 410, with non-reflective black anti-corrosion coating - ballistic nylon case - device weight 236 ± 5 g			
	- Set weight with case 275 ± 5 g - climatic mechanical conditions of use: from -20 °C to $+50$ °C. - reliability: Shelf life 10 years.			
	Set composition: - awl for C-4 explosives - wire crimping pliers - wire cutting pliers - pointed pliers with a part for crimping detonators - folding blade (7.5 ± 0.5 cm long) - serrated blade (7.5 ± 0.5 cm long) - blade saws with universal handle - screwdriver - flat screwdrivers (small, medium and large) file			

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	<ul style="list-style-type: none"> - bottle opener - can opener - ruler - ribbon - case - instructions for handling and basic maintenance in Serbian 			
7.	<p>Remote activation kit (NONEL) Quantity: 2 Sets Note: for remote activation of explosive charges Required technical characteristics:</p> <ul style="list-style-type: none"> - all cases should be watertight - all keys for the mini-controller and remote control, LEDs and hardware should be inserted into the housing, in order to minimize the possibility of damage - remote control should have an automatic deactivation function for additional safety - process frequency: 150-170 MHz - Frequency stability: 0,0000025% - Climatic and mechanical conditions for work should be: from -26 °C to +60 °C - Transmission power: <ul style="list-style-type: none"> • mini controller: 2-5 W, • electric remote control: 2 W • test box: 1 W • RSTI: 2-5 W - Power: 7,2 W - Transmission range: 3 to 7 km in line of sight - Weight: with battery: up to 2,5 kg; without battery: up to 1,2 kg - Power supply: rechargeable battery - Ignition energy: 2,8 J (normal) and 1,8 J (minimum) <p>Set composition:</p> <ul style="list-style-type: none"> - Hard cover packaging case, - 8- position controller - Mini controller, - Test sample - 2 electric remote controls, 			

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	<ul style="list-style-type: none"> - 2 RSTI remote controls, - Battery charger with 5 positions, - Tactical holster with insert - Device carrying strap, - Instructions for handling and basic maintenance in Serbian 			
8.	<p>Protective demining suit with helmet and visor Quantity: 25 Sets</p> <p>8.1. Protective apron Note: Effective protection against explosion of mines and fragments of the upper part of the body (from neck to knees) Required technical characteristics:</p> <ul style="list-style-type: none"> - Separate sleeves - The apron set should meet the level of protection STANAG 2920 B50 - Weight ≤ 7 kg - Provides the user with maximum mobility <p>8.2. Helmet with visor Note: Effective protection of the head from the explosion of mines and fragments Required technical characteristics:</p> <ul style="list-style-type: none"> - Helmet should meet the level of protection STANAG 2920 <li style="padding-left: 20px;">The visor should provide ballistic protection from shrapnel to level B 50 250 m/sec <li style="padding-left: 20px;">The visor should provide a clear field of vision without optical distortion <li style="padding-left: 20px;">Helmet weight with visor weight ≤ 3,0 kg - Provides the user with maximum mobility 			

All items	Delivery of all items to following address: "Kasarna Aerodrom", Jabučki put bb, 26000 Pančevo, Republic of Serbia.			
All items	Testing of all basic functions of the instrument on a set of producers standard samples commonly used for the corresponding instrument.			

	Installed equipment must be tested as system, compatible with existing system.			
All items	Technical documentation for equipment (Operating manuals/ Users Guide/ Equipment operating instructions/ Cleaning procedures/ Maintenance procedures/ Calibration procedures) upon delivery.			
All items	<p>Warranty</p> <p>Warranty period 365 days from the issuance of PAC (Provisional Acceptance Certificate) in accordance with article 32 SC and GC of the Contract. Offer must include warranty service description including:</p> <ul style="list-style-type: none"> • Service organisation contact data including name, postal address, telephone number, fax number and e-mail address; • Guaranteed that any requests for services will be attended to within 48 hours; • Guarantee that all items can be repaired or alternatively replaced within a maximum of 7 days; • Letter of confirmation that genuine spare parts and consumables will be available for a period of minimum 3 years from the date of final acceptance of the equipment. 			
All items	<p>Commercial warranty</p> <p>365 days from the issuance of FAC (Final Acceptance Certificate) in accordance with the conditions laid down in Article 32 of the General Conditions and Article 33 of the Special Conditions.</p> <p>Detailed description of the organisation of the proposed service and description of the Manufacturer's commercial warranty shall be included in the offer.</p>			