Supply Requirements

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# Scope of Supply

|  |  |  |
| --- | --- | --- |
| Table of Supply | | |
| № | Name of Item (description) | Quantity |
|  | Lot 1 |  |
| 1 | Truck for standard collection of municipal waste - side loading, capacity 14 m3 | 6 |
|  | Lot 2 |  |
| 1 | Truck for standard collection of municipal waste – rear loading, capacity 12-14 m3 | 10 |
| 2 | Truck for standard collection of municipal waste – rear loading, capacity 16-18 m3 | 20 |
|  | Lot 3 |  |
| 1 | Tractors for semi-trailers | 8 |
| 2 | Semi-trailers for waste transfer | 8 |

# Delivery and Completion Requirements

The delivery schedule expressed as 21 months stipulates hereafter a delivery date which is the date of delivery of the Goods and Related Services, as per the terms of the Contract.

Shorter delivery periods are acceptable.

Together with the Goods, the Supplier shall provide all of the appropriate documentation, namely a complete technical manual of the product, with technical specifications, instructions for installation, settings, maintenance and service available in Romanian language

The following document shall be provided within the proposal:

Letter from the Manufacturer or the official distributor (importer) of the Manufacturer in Moldova on the guarantee of delivery within the time specified in the tender documents.

**GOODS**

**The Goods shall be delivered within the periods stated below starting from the Commencement Date, defined as the date of Contract signature.**

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Description | Qty | Delivery period (months from the Commencement Date) |
|  | Lot 1 |  |  |
| 1 | Truck for standard collection of municipal waste - side loading, capacity 14 m3 | 6 pcs | 12 |
| 2 | Spare parts for Truck for standard collection of municipal waste - side loading, capacity 14 m3 |  |  |
| 2.1 | Engine   * set of all filters (air filter, oil filter, gas-oil filter, …) * set of belts | 6 sets | 12 |
| 2.2 | Hydraulics   * set of filters * set of seals for all the cylinders * set of all the hoses | 6 sets | 12 |
| 2.3 | * set of all the cylinders * set of all the spindles for the mounting of the cylinders * set of all the hydraulic distributors * hydraulic pump | 1 set | 12 |
|  | Lot 2 |  |  |
| 1 | Truck for standard collection of municipal waste – rear loading, capacity 12-14 m3 | 10 pcs | 18 |
| 2 | Truck for standard collection of municipal waste – rear loading, capacity 16-18 m3 | 10 pcs | 15 |
| 10 pcs | 21 |
| 3 | Spare parts for Truck for standard collection of municipal waste – rear loading, capacity 12-14 m3 |  |  |
| 3.1 | Engine   * set of all filters (air filter, oil filter, gas-oil filter, …) * set of belts | 10 sets | 18 |
| 3.2 | Hydraulics   * set of filters * set of seals for all the cylinders * set of all the hoses | 10 sets | 18 |
| 3.3 | * set of all the cylinders * set of all the spindles for the mounting of the cylinders * set of all the hydraulic distributors * hydraulic pump | 1 set | 18 |
| 4 | Spare parts for Truck for standard collection of municipal waste – rear loading, capacity 16-18 m3 |  |  |
| 4.1 | Engine   * set of all filters (air filter, oil filter, gas-oil filter, …) * set of belts | 10 sets | 15 |
| 10 sets | 21 |
| 4.2 | Hydraulics   * set of filters * set of seals for all the cylinders * set of all the hoses | 10 sets | 15 |
| 10 sets | 21 |
| 4.3 | * set of all the cylinders * set of all the spindles for the mounting of the cylinders * set of all the hydraulic distributors * hydraulic pump | 1 set | 15 |
|  | Lot 3 |  |  |
| 1 | Tractors for semi-trailers | 8 pcs | 12 |
| 2 | Semi-trailers for waste transfer | 8 pcs | 12 |
| 3 | Spare parts for tractors   * set of all filters (air filter, oil filter, gas-oil filter, …) * set of belts | 8 sets | 12 |
| * hydraulic pump | 1 pcs | 12 |
| 4 | Spare parts for semi-trailers   * 1 set of all the hydraulic distributors * 20 blades of moving floor | 1 set | 12 |

All deliveries to:

Regia ”Autosalubritate

14, 27 Martie 1918 str.

Chisinau

Republic of Moldova

Shorter delivery periods are acceptable.

Together with the Goods, the Supplier shall provide all of the appropriate documentation.

Not later than one week after delivery of Goods the Supplier shall organize the training session for the personnel of the Purchaser.

# Specifications

## 3.1. General requirements

3.1.1 The Purchaser’s basic technical requirements are made for "all weather" collection of municipal waste (household waste and other municipal waste).

3.1.2 The vehicles shall be able to operate under the following operation and storage conditions: state of the street and road network on the routes - in accordance with the Law of the Republic of Moldova of June 7, 2007 No. 131-XVI About traffic safety (as amended on 30-11-2018). The conditions of operation and storage are:

|  |  |
| --- | --- |
| Climate | Temperate continental |
| Air temperature in the area of roofing equipment | min.-35 °С, max. + 60 °С |
| Relative humidity | 98% at 25°С and lower |
| Environment | typical urban pollution (dust, gas pollution) |
| State of the street and road network on the routes | poor |
| Average length of the working day | 16 hours |
| Annual mileage, not more than | 50,000 km |
| Storage | without garage |

3.1.3 The Purchaser intends to obtain vehicles that can successfully achieve a certain service life under appropriate operating conditions. Their service life shall be specified by the Manufacturer, it shall be at least 10 years - 500,000 kilometres.

3.1.4 All the chassis of Lot 2 shall be from the same manufacturer in aim to simplify the maintenance for the Purchaser.

If a tenderer proposes offers for Lot 1 and Lot 2, all the chassis shall be from the same manufacturer.

## 3.2. Standards and certificates

3.2.1 The vehicles, and their components and spare parts, shall meet:

* the standards recognized by the regulatory legal acts of Moldova as mandatory;
* the European standards as specified in the Technical Requirements;

3.2.2 The tenderers shall guarantee the provision of a document approving the design of the vehicle, issued in accordance with the Procedure for approval of the design of vehicles, their parts and equipment based on the Moldovan Technical regulation for approval of motor vehicles and certification of their components

3.2.3 The proposed vehicles shall meet the Manufacturer’s typical standard, as well as accurately meet all the Purchaser’s parameters and requirements (the present Technical Specifications).

3.2.4 When the contract refers to certain standards and norms, which the provided or tested components and materials shall comply with, only the provisions of the latest edition or version of the relevant standards and codes are applicable, unless otherwise specified in these documents. Whenever there are references to national standards and codes or standards and codes in force in a particular country or region, it is allowed to use other official standards that are equal or higher standards compared to the mentioned standards and codes.

## 3.3. Homologation (approval) and documents

The Supplier should provide the following documents:

3.3.1 The document on approval of the design of the vehicle to be delivered shall be provided to the Purchaser within 120 days from the date of receipt by the Supplier of the Purchaser’s contract award notice. The Supplier shall conduct the homologation (Art. 39 Approval and certification of motor vehicles of the Law June 7, 2007 No. 131-XVI and the technical conditions to be met for a vehicle to be permitted to circulate of the Government Decision No. 357 of 13 May 2009 on Approval of the Road Traffic Regulation) of the vehicle at its own expense and risk. Failure to comply with the homologation requirement may lead to the termination of the Contract.

3.3.2 A copy of ISO 9001:2015 certificate issued to the Manufacturer.

3.3.3 A copy of ISO 14001 and ISO 45001 Certification issued to the Manufacturer or equivalent documents for compliance with the Environmental and Occupational Safety and Health requirements.

3.3.4 A copy of the certificate on assignment of the World manufacturer identifier (WMI) code issued to the Manufacturer of the proposed Goods.

## 3.4. Acceptance of the goods

3.4.1 The Purchaser (or the person delegated by Purchaser) will conduct a series of tests and measurements on the delivered goods. Such tests and measurements are defined in the relevant Technical Requirements of the goods to be delivered.

3.4.2 The tests and measurements will be conducted contradictorily, i.e., in the presence of the Supplier (or the person delegated by Supplier).

3.4.3 The Supplier will be invited to sign the minutes of the tests and measurements.

3.4.4 The Statement of Acceptance will be delivered if:

* all the tests and measurements are satisfactory, and
* all the contractual quantities of goods and spare parts are delivered, and
* there is no apparent damage on the goods and spare parts, and
* all the required documentation has been delivered in the required languages;
* the delivery of the training of the users.

3.4.5 In case of non-fulfilment of the characteristics subject to the tests and measurements, the Supplier will be requested to substitute / adjust / modify the goods at his own expenses before to pass again the tests and measurements.

## 3.5. Goods quality

3.5.1 The Supplier shall guarantee that the Goods delivered under this Contract are new and manufactured with new materials and components not earlier than in 2022.

## 3.6. Warranty

All claims regarding quality and completeness shall be addressed by the Purchaser to the Supplier after the acceptance of the Goods. The claims for hidden defects shall be made during the warranty period.

3.6.1 The Supplier shall undertake obligations under the warranty for the Goods and their parts supplied by the Purchaser against any defect: either design or assembly defect – caused by the use of materials of improper quality or improper assembly.

Such a warranty shall be provided for the period of at least 12 months without mileage restrictions. An additional warranty covering 12 months of service life or 200,000 km of mileage (depending on which of the events occurs earlier) is provided for the vehicle’s powertrain.

The warranty period begins on the date of transfer of the equipped Goods to the Purchaser.

3.6.2 The warranty shall be limited to the repair of the part(s) out of order due to a defect of the material or the replacement of the part(s) if the repair is impossible for technical reasons.

3.6.3 The warranty terms and conditions are described in the warranty handbooks provided to the Purchaser.

3.6.4 Vehicle tires, body extensions, batteries and accessories installed on the Goods additionally by a third party at the Purchaser’s request after the delivery (radio, air conditioning system, etc.) shall not be covered by the warranty terms and conditions; they are covered by the warranties of the respective manufacturers, whenever the required service stations are available.

The following expenses are not part of the Warranty:

* the cost of consumables (oils, fuel, lubricants, etc.);
* the cost of maintenance and lubrication operations, including operations related to scheduled maintenance works;
* the cost of repairs caused by usual wear and tear and road traffic accidents or improper use of the vehicle (see Driver’s manual/Service book); and

3.6.5 By concluding a separate agreement, the Supplier may provide post-warranty service, maintenance and sale of spare parts to the Purchaser.

## 3.7. Maintenance during Warranty period

3.7.1 The Supplier shall provide the Primary Maintenance of the vehicles and waste box equipment during the Warranty period.

3.7.2 There shall be an authorized dealer’s maintenance service in Chisinau or its vicinity for the chassis of the trucks.

3.7.3 The Purchaser shall be able to make himself the maintenance of the waste box after the warranty period. For that purpose, the Supplier shall provide a full technical dossier of the waste box with a nomenclature of the parts and assembling drawings. The nomenclature of the parts shall include a price list for the ones manufactured by the constructor of the waste box and the lifting devices, and the commercial references for the common ones (hydraulics, bearings, spindles, seals, bolts, etc.).

## 3.8. Transfer of property

The transfer of property of the goods will be effective after:

* Custom clearance of the delivered goods;
* Statement of Acceptance of the goods;
* Delivery of all the goods and spare parts (totally or partly according to the calendar of deliveries);
* Delivery of the required documentation;
* Delivery of the training of the users.

## 3.9. Option ICTs

The participant will propose in a separate line the optional equipment of all the trucks with:

* Connected tank cap and gauge
* WiFi connection of the OBU

# Technical requirements

### Lot 1 Item 1 Truck for standard collection of municipal waste - side loading, capacity 14 m3

|  |  |  |
| --- | --- | --- |
| No. | Purchaser’s requirements | Comment on compliance with technical specifications |
| 1 | GENERAL REQUIREMENT |  |
|  | The vehicle shall be a two-axle category N3 |  |
|  | Complying with:   * COMMISSION REGULATION (EU) No 678/2011 of 14 July 2011 replacing Annex II and amending Annexes IV, IX and XI to Directive 2007/46/EC of the European Parliament and of the Council establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) * COMMISSION REGULATION (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council * EN 1501-2 (March 2021) Refuse collection vehicles - General requirements and safety requirements - Part 2: side loaded refuse collection vehicles * EN 1501-4 (December 2007) Refuse collection vehicles and their associated lifting devices - General requirements and safety requirements - Part 4: noise test code for refuse collection vehicles |  |
|  | The trucks must be equipped with a waste box for collection of solid household waste disposed in non-movable containers.  Loading of waste: loading of waste is done with a hydraulic side loader with a capacity of gripping the waste collection container and emptying it through a hatch in the top lid of the body and putting back the container on its place. Outside control device on the right side of the lorry.  A ram pushes and compacts the waste. For the downloading of the box, the rear door opens and a pusher pushes out the waste.  The chassis proposal shall be validated by an engineering study on a technical document of the "CHASSIS BLUE" (detailed drawing of the chassis) type with the vehicle's technical specifications allowing control of load distribution, stability and assembly possibilities.  Documentation: Full technical and performance documentation in English and Romanian. |  |
|  | Vehicle as a whole:  Painting: the vehicle is painted in orange (RAL 2003 Orange Pastel). The waste box and the rear door are painted as (minimum):   * On scoured iron sheets * Washing * Rinsing * Phosphating * 2 layers of primer paint * 2 layers of lacquer |  |
| 2 | CHASSIS |  |
|  | * Important: the frame of the chassis shall be entirely welded and not assembled by bolts in aim to resist to the torsion momentum induced by the side loading |  |
|  | * Gross vehicle weight: 15 tonnes ± 0.5 tonne |  |
|  | * Minimum technical capacity: 15 tonnes |  |
|  | * Front axle capacity: 6 tonnes min. |  |
|  | * Rear axle capacity: 11 tonnes min. |  |
|  | * Wheelbase: 3,900 mm ±50 mm (original or modified) |  |
|  | * Rear air suspension |  |
|  | * Net weight capacity of the chassis: ≥9 tonnes |  |
|  | * Minimum payload: 4.5 tonnes |  |
| 3 | ENGINE |  |
|  | * Power ≥220 HP (160 kW) |  |
|  | * Diesel engine, compliant with EURO5 |  |
|  | * Deep frost starting kit |  |
| 4 | DRIVE LINE & GEARBOX |  |
|  | * Automated gearbox |  |
|  | * 1 or 2 reverse gear ratios – Audible alarm on reversing disconnectable for working by night |  |
|  | * Power take-off on disengageable gearbox with hollow shaft for flange-mount pump coupling |  |
|  | * Ratio as close as possible to 1:1 (0.9-1.1) |  |
|  | * Minimum torque 450 N.m |  |
|  | * 1 rear drive axle with differential locking system |  |
| 5 | CAB |  |
|  | * Short, 3-seater |  |
|  | * Warning beacon on cab |  |
|  | * 2 kg extinguisher inside |  |
| 6 | MISCELLANEOUS |  |
|  | * Steel rear wings with standard mud-flaps |  |
|  | * Side bars as cyclist fenders |  |
|  | * Motor voltage power ≈ 11 kW: 24V |  |
|  | * 6 kg extinguisher on mounting |  |
| 7 | HYDRAULIC PUMP |  |
|  | * Location: mounted on the power take-off of gearbox |  |
|  | * Flow: First body: ≥ 59 litres / minutes |  |
|  | * Second body: ≥ 35 litres / minutes |  |
|  | * Pressure: ≥ 160 bars |  |
|  | * Working speed: 1,000 RPM |  |
| 8 | OIL TANK |  |
|  | * Capacity: ≥ 125 litres |  |
|  | * Steel: 3 mm steel E24 or S235JRG2 |  |
|  | * Filter: 25 microns |  |
| 9 | WASTE BOX |  |
|  | Volume |  |
|  | * Geometric: ≥14 m3 |  |
|  | * Useful: ≥14 m3 |  |
|  | Conception |  |
|  | * Steel: E 24 or S235JRG2 (S600 or HARDOX 400 for the floor) |  |
|  | Thickness: |  |
|  | * Floor: 4 mm (S600 or HARDOX 400) |  |
|  | * Sides: 3 mm |  |
|  | * Frame: 2 mm |  |
|  | * Roof: 2.5 mm |  |
|  | * Rear crossbar: 5 mm |  |
| 10 | HOPPER |  |
|  | Conception  The hopper is done by 2 fix panels (front and rear) and 1 mobile panel (left side of the truck) closing the hopper during the transfer. |  |
|  | Sides: |  |
|  | * Steel: E 24 or S235JRG2 |  |
|  | * Thickness: 3 mm |  |
|  | Mobile panel |  |
|  | * Steel: E 24 or S235JRG2 |  |
|  | * Thickness: 4 mm |  |
|  | Opening / closing |  |
|  | * Duration of opening: 7 seconds |  |
|  | * Safety of closing: By non-return valve |  |
| 11 | COMPACTING AND EJECTION SYSTEM |  |
|  | Type   * Panel and sweeping plate |  |
|  | Conception |  |
|  | Intern part of panel |  |
|  | * Steel: E36 or S355 |  |
|  | * Thickness: 3 mm |  |
|  | Intern part of sweeping plate |  |
|  | * Steel: E36 or S355 |  |
|  | * Thickness: 4 mm |  |
|  | Front of plate |  |
|  | * Steel: E36 or S355 |  |
|  | * Thickness: 8 mm |  |
|  | Performances |  |
|  | * Compaction ratio: 2 to 3 according to the waste |  |
|  | * Duration of the cycle: <25 seconds |  |
|  | * Volume sweeping plate: >1 m3 |  |
|  | * Capacity of absorption: >3 m3 / minute |  |
|  | * Duration of ejection: <30 seconds |  |
| 12 | HANDLING ARM |  |
|  | Conception  The handling arm is implemented on the right side of the truck. It must take the standard non-movable containers (trapezoidal 750 litres):   * at a height between the ground level and a quay of 1 m high, * at a distance >2 metres from the side of the truck when the container is on the ground and 1.80 metres when the container is on a quay of 1 m high, * to bring them at the top of the waste box (maximum load 200 kg), * and to rock them on 160° in aim to empty them in the hopper. |  |
|  | Compliant with EN 1501-5 (2021) Refuse collection vehicles - General requirements and safety requirements - Part 5: lifting devices for refuse collection vehicles |  |
|  | * Extension of the handling arm to take containers at > 2 m |  |
|  | * Maximum load at 2 m: 200 kg |  |
|  | * Rotation for downloading in the hopper: 160° |  |
|  | * Duration of the whole cycle <1 minute |  |
|  | Stabilizer |  |
|  | * Implemented on the right side of the truck close to the handling arm |  |
|  | * Made of an hydraulic telescopic cylinder and a foot plate punching on the ground |  |
|  | * Affording the moment (load) of the handling arm + full container |  |
|  | The handling arm is operated from a control place of the right side of the truck, where the operator can see all the movements of the handling arm. |  |
| 13 | ICTs |  |
|  | The trucks are equipped with: |  |
|  | * GPS/GSM tracker |  |
|  | * Chrono-tachograph 1C (European Regulation) |  |
|  | * On-Board Unit (OBU) supporting rFMS standard |  |
| 14 | MISCELLANEOUS |  |
|  | Ladder |  |
|  | * Quantity: 1 |  |
|  | * Location: At right side allowing to climb on the roof of the waste box |  |
|  | * Width: >400 mm |  |
|  | Working light |  |
|  | * Quantity: 2 for the side loader place |  |
|  | * Location: in the side loader control panel and in the top hopper |  |
|  | Rotating light |  |
|  | * Quantity: 1 |  |
|  | * Location: Front of the body |  |
|  | Flashing light |  |
|  | * Quantity: 2 |  |
|  | * Location: Rear of the tailgate |  |
|  | Emergency stop |  |
|  | * Quantity: 2 |  |
|  | * Location: At right and left rear |  |
|  | Side signs including blind spot marking |  |
|  | Side and rear marking with stripes according to UNECE Regulation 48 - ECE104 |  |
| 14 | DOCUMENTATION |  |
|  | * User Manual of the chassis |  |
|  | * Diagnostic software of the chassis |  |
|  | * User Manual of the Waste Box and its accessories (hopper, compactor, handling arm) |  |
| 15 | TESTS FOR ACCEPTANCE |  |
|  | Checking of the drawings of the waste box |  |
|  | Measurement of dimensions and thicknesses as required in the present specifications |  |
|  | Test of lifting with a loaded container as required in the present specifications |  |
|  | The delivered vehicles will be checked according to the Table 3 of EN 1501-2 (March 2021) Refuse collection vehicles - General requirements and safety requirements - Part 2: side loaded refuse collection vehicles |  |

### Lot 2 Item 1 Truck for standard collection of municipal waste – rear loading, capacity 12-14 m3

|  |  |  |
| --- | --- | --- |
| No. | Purchaser’s requirements | Comment on compliance with technical specifications |
| 1 | GENERAL REQUIREMENT |  |
|  | The vehicle shall be a two-axle category N3 |  |
|  | Complying with:   * COMMISSION REGULATION (EU) No 678/2011 of 14 July 2011 replacing Annex II and amending Annexes IV, IX and XI to Directive 2007/46/EC of the European Parliament and of the Council establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) * COMMISSION REGULATION (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council * EN 1501-1 (March 2021) Refuse collection vehicles - General requirements and safety requirements - Part 1: rear end loaded refuse collection vehicles + Amendment NF EN 1501-1+A1 (May 2015) * EN 1501-4 (December 2007) Refuse collection vehicles and their associated lifting devices - General requirements and safety requirements - Part 4: noise test code for refuse collection vehicles |  |
|  | The trucks must be equipped with a waste box for collection of solid household waste disposed in 1 100 l roll containers with a dome lid. The waste is loaded in a hopper at the rear part of the truck. A ram pushes and compacts the waste. For the downloading of the box, the rear door opens with hydraulic mechanism and a pusher pushes out the waste.  The chassis proposal shall be validated by an engineering study on a technical document of the "CHASSIS BLUE" (detailed drawing of the chassis) type with the vehicle's technical specifications allowing control of load distribution, stability and assembly possibilities. |  |
|  | Vehicle as a whole:  Painting: the vehicle is painted in orange (RAL 2003 Orange Pastel). The waste box and the rear door are painted as (minimum):   * On scoured iron sheets * Washing * Rinsing * Phosphating * 2 layers of primer paint * 2 layers of lacquer |  |
| 2 | CHASSIS |  |
|  | * Gross vehicle weight: 15 tonnes ± 0.5 tonne |  |
|  | * Minimum technical capacity: 15 tonnes |  |
|  | * Front axle capacity: 5 tonnes min. |  |
|  | * Rear axle capacity: 10 tonnes min. |  |
|  | * Wheelbase: 3,850 mm ± 50 mm (original or modified) |  |
|  | * Rear air suspension |  |
|  | * Net weight capacity: ≥10.5 tonnes |  |
|  | * Minimum payload: 4.0 tonnes |  |
| 3 | ENGINE |  |
|  | * Power ≥250 HP (184 kW) |  |
|  | * Diesel engine, compliant with EURO5 |  |
|  | * Vertical exhaust |  |
|  | * Deep frost starting kit |  |
| 4 | DRIVE LINE & GEARBOX |  |
|  | * Automated gearbox |  |
|  | * 1 or 2 reverse gear ratios – Audible alarm on reversing disconnectable for working by night |  |
|  | * Power take-off on disengageable gearbox with hollow shaft for flange-mount pump coupling |  |
|  | * Ratio as close as possible to 1:1 (0.9-1.1) |  |
|  | * Minimum torque 350 N.m |  |
|  | * 1 rear drive axle with differential locking system |  |
| 5 | CAB |  |
|  | * Short, 3-seater |  |
|  | * Warning beacon on cab |  |
|  | * 2 kg extinguisher inside |  |
| 6 | MISCELLANEOUS |  |
|  | * Steel rear wings with standard mud-flaps |  |
|  | * Side bars as cyclist fenders |  |
|  | * Motor voltage power ≈ 11 kW: 24V |  |
|  | * 6 kg extinguisher on mounting |  |
| 7 | HYDRAULIC PUMP |  |
|  | * Location: mounted on the gearbox |  |
|  | * Flow: First body: ≥ 59 litres / minutes |  |
|  | * Pressure: ≥ 160 bars |  |
|  | * Working speed: 1,000 RPM |  |
|  | * Switch off speed: 1,200 RPM |  |
| 8 | OIL TANK |  |
|  | * Capacity: ≥ 70 litres |  |
|  | * Steel: 3 mm steel E24 or S235JRG2 |  |
|  | * Filter: 25 microns |  |
| 9 | WASTE BOX |  |
|  | Volume |  |
|  | * Geometric: ≥12 m3 |  |
|  | * Useful: ≥13 m3 with the hopper |  |
|  | Conception |  |
|  | * Steel: E 24 or S235JRG2 |  |
|  | Thicknesses: |  |
|  | * Floor: 4 mm |  |
|  | * Sides: 3 mm |  |
|  | * Frame: 2 mm |  |
|  | * Roof: 2.5 mm |  |
|  | * Rear crossbar: 5 mm |  |
|  | Loading place: |  |
|  | * Steel: Superelso E890 or IMEX 700 |  |
|  | * Thickness: 5 mm |  |
|  | * Reinforcement of loading place: Creusabro HB 400 or Hardox 400 thickness 5 mm |  |
|  | Ejector |  |
|  | * Steel: E 36 or S355JR |  |
|  | * Thickness: 3 mm |  |
|  | * Duration of ejection: <30 seconds |  |
| 10 | HOPPER |  |
|  | Conception |  |
|  | Sides: |  |
|  | * Steel: E 36 or S355JR |  |
|  | * Thickness: 3 mm |  |
|  | Mobile panel |  |
|  | * Steel: E 36 or S355JR |  |
|  | * Thickness: 4 mm |  |
|  | Bottom of hopper |  |
|  | * Steel: Superelso E890 or IMEX 700 |  |
|  | * Thickness: 4 mm |  |
|  | Opening / closing |  |
|  | * Duration of opening: <20 seconds |  |
|  | * Closing: By non-return valve |  |
| 11 | COMPACTING SYSTEM |  |
|  | Type   * Panel and sweeping plate |  |
|  | Conception |  |
|  | Intern part of panel |  |
|  | * Steel: Creusabro HB 400 or Hardox 400 |  |
|  | * Thickness: 3 mm |  |
|  | Intern part of sweeping plate |  |
|  | * Steel: Superelso E890 or IMEX 700 |  |
|  | * Thickness: 4 mm |  |
|  | Front of plate |  |
|  | * Steel: Creusabro HB 400 or Hardox 400 |  |
|  | * Thickness: 8 mm |  |
|  | Performances |  |
|  | * Compaction ratio: 4 to 6 according to the waste |  |
|  | * Duration of the cycle: <25 seconds |  |
|  | * Volume sweeping plate: >1 m3 |  |
|  | * Capacity of absorption: >3 m3 / minute |  |
| 12 | LIFT FOR CONTAINERS |  |
|  | Compliant with EN 1501-5 (November 2011) Refuse collection vehicles - General requirements and safety requirements - Part 5: lifting devices for refuse collection vehicles |  |
|  | Lifting capacity: 600-700 kg |  |
|  | Comb compatible for flat and dome lids and for 240 l containers |  |
| 13 | ICTs |  |
|  | The trucks are equipped with: |  |
|  | * GPS/GSM tracker |  |
|  | * Chrono-tachograph 1C (European Regulation) |  |
|  | * On-Board Unit (OBU) supporting rFMS standard |  |
| 14 | MISCELLANEOUS |  |
|  | Footstep |  |
|  | * Height: 400 mm |  |
|  | * Type: Folding |  |
|  | * Area: >1000 cm² |  |
|  | * Position: Central footstep |  |
|  | Handbar |  |
|  | * Quantity: 2 |  |
|  | * Location: At right and left rear |  |
|  | * Length: 600 mm |  |
|  | Working light |  |
|  | * Quantity: 2 |  |
|  | * Location: On the rear |  |
|  | Rotating light |  |
|  | * Quantity: 1 |  |
|  | * Location: Front of the body |  |
|  | Flashing light |  |
|  | * Quantity: 2 |  |
|  | * Location: Rear of the tailgate |  |
|  | Emergency stop |  |
|  | * Quantity: 2 |  |
|  | * Location: At right and left rear |  |
|  | Side signs including blind spot marking |  |
|  | Side and rear marking with stripes according to UNECE Regulation 48 - ECE104 |  |
| 15 | DOCUMENTATION |  |
|  | * User Manual of the chassis |  |
|  | * Diagnostic software of the chassis |  |
|  | * User Manual of the Waste Box and its accessories (hopper, compactor, lifting device) |  |
| 16 | TESTS FOR ACCEPTANCE |  |
|  | Checking of the drawings of the waste box |  |
|  | Measurement of dimensions and thicknesses as required in the present specifications |  |
|  | Test of lifting with a loaded container as required in the present specifications |  |
|  | The delivered vehicles will be checked according to the Table 3 of EN 1501-1 (March 2021) Refuse collection vehicles - General requirements and safety requirements - Part 1: rear end loaded refuse collection vehicles |  |

### Lot 2 Item 2 Truck for standard collection of municipal waste – rear loading, capacity 16-18 m3

|  |  |  |
| --- | --- | --- |
| No. | Purchaser’s requirements | Comment on compliance with technical specifications |
| 1 | GENERAL REQUIREMENT |  |
|  | The vehicle shall be a two-axle category N3 |  |
|  | Complying with:   * COMMISSION REGULATION (EU) No 678/2011 of 14 July 2011 replacing Annex II and amending Annexes IV, IX and XI to Directive 2007/46/EC of the European Parliament and of the Council establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) * COMMISSION REGULATION (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council * EN 1501-1 (March 2021) Refuse collection vehicles - General requirements and safety requirements - Part 1: rear end loaded refuse collection vehicles + Amendment NF EN 1501-1+A1 (May 2015) * EN 1501-4 (December 2007) Refuse collection vehicles and their associated lifting devices - General requirements and safety requirements - Part 4: noise test code for refuse collection vehicles |  |
|  | The trucks must be equipped with a waste box for collection of solid household waste disposed in 1 100 l roll containers with a dome lid. The waste are loaded in a hopper at the rear part of the truck. A ram pushes and compacts the waste. For the downloading of the box, the rear door opens with hydraulic mechanism and a pusher pushes out the waste.  The chassis proposal shall be validated by an engineering study on a technical document of the "CHASSIS BLUE" (detailed drawing of the chassis) type with the vehicle's technical specifications allowing control of load distribution, stability and assembly possibilities. |  |
|  | Vehicle as a whole:  Painting: the vehicle is painted in orange (RAL 2003 Orange Pastel). The waste box and the rear door are painted as (minimum):   * On scoured iron sheets * Washing * Rinsing * Phosphating * 2 layers of primer paint * 2 layers of lacquer |  |
| 2 | CHASSIS |  |
|  | * Gross vehicle weight: 18 tonnes ± 1 tonne |  |
|  | * Minimum technical capacity: 18 tonnes |  |
|  | * Front axle capacity: 7 tonnes min. |  |
|  | * Rear axle capacity: 11 tonnes min. |  |
|  | * Wheelbase: 4,100 mm ± 50 mm (original or modified) |  |
|  | * Rear air suspension |  |
|  | * Net weight capacity: ≥12 tonnes |  |
|  | * Minimum payload: 6 tonnes |  |
| 3 | ENGINE |  |
|  | * Power ≥250 HP (184 kW) |  |
|  | * Diesel engine, compliant with EURO5 |  |
|  | * Vertical exhaust |  |
|  | * Deep frost starting kit |  |
| 4 | DRIVE LINE & GEARBOX |  |
|  | * Automated gearbox |  |
|  | * 1 or 2 reverse gear ratios – Audible alarm on reversing disconnectable for working by night |  |
|  | * Power take-off on disengageable gearbox with hollow shaft for flange-mount pump coupling |  |
|  | * Ratio as close as possible to 1:1 (0.9-1.1) |  |
|  | * Minimum torque 350 N.m |  |
|  | * 1 rear drive axle with differential locking system |  |
| 5 | CAB |  |
|  | * Short, 3-seater |  |
|  | * Warning beacon on cab |  |
|  | * 2 kg extinguisher inside |  |
| 6 | MISCELLANEOUS |  |
|  | * Steel rear wings with standard mud-flaps |  |
|  | * Side bars as cyclist fenders |  |
|  | * Motor voltage power ≈ 11 kW : 24V |  |
|  | * 6 kg extinguisher on mounting |  |
| 7 | HYDRAULIC PUMP |  |
|  | * Location: mounted on the gearbox |  |
|  | * Flow: First body: ≥ 59 litres / minutes |  |
|  | * Pressure: ≥ 160 bars |  |
|  | * Working speed: 1,000 RPM |  |
|  | * Switch off speed: 1,200 RPM |  |
| 8 | OIL TANK |  |
|  | * Capacity: ≥ 70 litres |  |
|  | * Steel: 3 mm steel E24 or S235JRG2 |  |
|  | * Filter: 25 microns |  |
| 9 | WASTE BOX |  |
|  | Volume |  |
|  | * Geometric: ≥16 m3 |  |
|  | * Useful: ≥17 m3 with the hopper |  |
|  | Conception |  |
|  | * Steel: E 24 or S235JRG2 |  |
|  | Thicknesses: |  |
|  | * Floor: 4 mm |  |
|  | * Sides: 3 mm |  |
|  | * Frame: 2 mm |  |
|  | * Roof: 2.5 mm |  |
|  | * Rear crossbar: 5 mm |  |
|  | Loading place: |  |
|  | * Steel: Superelso E890 or IMEX 700 |  |
|  | * Thickness: 5 mm |  |
|  | * Reinforcement of loading place: Creusabro HB 400 or Hardox 400 thickness 5 mm |  |
|  | Ejector |  |
|  | * Steel: E 36 or S355JR |  |
|  | * Thickness: 3 mm |  |
|  | * Duration of ejection: <30 seconds |  |
| 10 | HOPPER |  |
|  | Conception |  |
|  | Sides: |  |
|  | * Steel: E 36 or S355JR |  |
|  | * Thickness: 3 mm |  |
|  | Mobile panel |  |
|  | * Steel: E 36 or S355JR |  |
|  | * Thickness: 4 mm |  |
|  | Bottom of hopper |  |
|  | * Steel: Superelso E890 or IMEX 700 |  |
|  | * Thickness: 4 mm |  |
|  | Opening / closing |  |
|  | * Duration of opening: <20 seconds |  |
|  | * Closing: By non-return valve |  |
| 11 | COMPACTING SYSTEM |  |
|  | Type   * Panel and sweeping plate * Curved guiding |  |
|  | Conception |  |
|  | Intern part of panel |  |
|  | * Steel: Creusabro HB 400 or Hardox 400 |  |
|  | * Thickness: 3 mm |  |
|  | Intern part of sweeping plate |  |
|  | * Steel: Superelso E890 or IMEX 700 |  |
|  | * Thickness: 4 mm |  |
|  | Front of plate |  |
|  | * Steel: Creusabro HB 400 or Hardox 400 |  |
|  | * Thickness: 8 mm |  |
|  | Performances |  |
|  | * Compaction ratio: 4 to 6 according to the waste |  |
|  | * Duration of the cycle: <25 seconds |  |
|  | * Volume sweeping plate: >1 m3 |  |
|  | * Capacity of absorption: >3 m3 / minute |  |
| 12 | LIFT FOR CONTAINERS |  |
|  | Compliant with EN 1501-5 (November 2011) Refuse collection vehicles - General requirements and safety requirements - Part 5: lifting devices for refuse collection vehicles |  |
|  | Lifting capacity: 600-700 kg |  |
|  | Comb compatible for flat and dome lids and for 240 l containers |  |
| 13 | ICTs |  |
|  | The trucks are equipped with: |  |
|  | * GPS/GSM tracker |  |
|  | * Chrono-tachograph 1C (European Regulation) |  |
|  | * On-Board Unit (OBU) supporting rFMS standard |  |
| 14 | MISCELLANEOUS |  |
|  | Footstep |  |
|  | * Height: 400 mm |  |
|  | * Type: Folding |  |
|  | * Area: >1000 cm² |  |
|  | * Position: Central footstep |  |
|  | Handbar |  |
|  | * Quantity: 2 |  |
|  | * Location: At right and left rear |  |
|  | * Length: 600 mm |  |
|  | Working light |  |
|  | * Quantity: 2 |  |
|  | * Location: On the rear |  |
|  | Rotating light |  |
|  | * Quantity: 1 |  |
|  | * Location: Front of the body |  |
|  | Flashing light |  |
|  | * Quantity: 2 |  |
|  | * Location: Rear of the tailgate |  |
|  | Emergency stop |  |
|  | * Quantity: 2 |  |
|  | * Location: At right and left rear |  |
|  | Side signs including blind spot marking |  |
|  | Side and rear marking with stripes according to UNECE Regulation 48 - ECE104 |  |
| 15 | DOCUMENTATION |  |
|  | * User Manual of the chassis |  |
|  | * Diagnostic software of the chassis |  |
|  | * User Manual of the Waste Box and its accessories (hopper, compactor, lifting device) |  |
| 16 | TESTS FOR ACCEPTANCE |  |
|  | Checking of the drawings of the waste box |  |
|  | Measurement of dimensions and thicknesses as required in the present specifications |  |
|  | Test of lifting with a loaded container as required in the present specifications |  |
|  | The delivered vehicles will be checked according to the Table 3 of EN 1501-1 (March 2021) Refuse collection vehicles - General requirements and safety requirements - Part 1: rear end loaded refuse collection vehicles |  |

### Lot 3 Item 1 Tractors for semitrailers

|  |  |  |
| --- | --- | --- |
| No. | Purchaser’s requirements | Comment on compliance with technical specifications |
| 1 | GENERAL REQUIREMENT |  |
|  | The vehicle shall be a two-axle category N2 BC |  |
|  | Complying with:   * COMMISSION REGULATION (EU) No 678/2011 of 14 July 2011 replacing Annex II and amending Annexes IV, IX and XI to Directive 2007/46/EC of the European Parliament and of the Council establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) * COMMISSION REGULATION (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council |  |
|  | Vehicle as a whole:  Painting: the vehicle is painted in WHITE RAL 9010. |  |
| 2 | CHASSIS |  |
|  | * Gross vehicle weight: 18 tonnes ± 1 tonne |  |
|  | * Minimum technical capacity: 18 tonnes |  |
|  | * Front axle capacity: 7.5 tonnes min. |  |
|  | * Rear axle capacity: 13 tonnes min. |  |
|  | * Wheelbase 3.600 mm ± 50 mm (original or modified) |  |
|  | * Leaf-spring suspension on front axle, parabolic |  |
|  | * Air suspension on rear axle |  |
|  | * Gross train weight: 45 tons |  |
|  | * Fuel tank >500 litres |  |
|  | * ADBlue tank ~80 litres |  |
| 3 | ENGINE |  |
|  | * Power ≥450 HP (330 kW) |  |
|  | * Diesel engine, compliant with EURO6 |  |
|  | * Deep frost starting kit |  |
| 4 | DRIVE LINE & GEARBOX |  |
|  | * Automated gearbox |  |
|  | * 1 or 2 reverse gear ratios – Audible alarm on reversing disconnectable for working by night |  |
|  | * Power take-off on disengageable gearbox with hollow shaft for flange-mount pump coupling |  |
|  | * Ratio as close as possible to 1:1 (0.9-1.1) |  |
|  | * Hydraulic pump delivering 110 l/min at 225 bars |  |
|  | * Hydraulic connection by coupling 1'' |  |
|  | * Socket 7 pin K7-13 24N |  |
| 5 | CAB |  |
|  | * Short, 3-seater |  |
|  | * Warning beacon on cab |  |
|  | * 2 kg extinguisher inside |  |
| 6 | ICTs |  |
|  | The tractors are equipped with: |  |
|  | * GPS/GSM tracker |  |
|  | * Chrono-tachograph 1C (European Regulation) |  |
|  | * On-Board Unit (OBU) supporting rFMS standard |  |
| 7 | MISCELLANEOUS |  |
|  | * Steel rear wings with standard mud-flaps |  |
|  | * Side bars as cyclist fenders |  |
|  | * Side signs including blind spot marking |  |
|  | * Side and rear marking with stripes according to UNECE Regulation 48 - ECE104 |  |
|  | * 6 kg extinguisher on mounting |  |

### Lot 3 Item 2 Semitrailers for waste transfer capacity 90 m3

|  |  |  |
| --- | --- | --- |
| No. | Purchaser’s requirements | Comment on compliance with technical specifications |
| 1 | GENERAL REQUIREMENT |  |
|  | The semitrailer shall be a three-axle category O DA |  |
|  | Complying with:   * COMMISSION REGULATION (EU) No 678/2011 of 14 July 2011 replacing Annex II and amending Annexes IV, IX and XI to Directive 2007/46/EC of the European Parliament and of the Council establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) * COMMISSION REGULATION (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council |  |
|  | Vehicle as a whole:  Painting: the box is painted in WHITE RAL 9010 |  |
| 2 | CHASSIS |  |
|  | * 3 axles |  |
|  | * Kerb weight 10 tons ±10% |  |
|  | * Two beams made of high-strength low-alloy steel |  |
|  | * Brakes : Disc |  |
|  | * Rear air suspension |  |
|  | * Net weight capacity: 22 tons with the body |  |
| 3 | WASTE BOX |  |
|  | * Geometric capacity ~90 m3 |  |
|  | * Overall height <4.050 mm |  |
|  | * Body made of alloy-extruded profiles |  |
|  | * Side walls inside/external thickness: 3/2 mm |  |
|  | * Internal plating H111 3mm 1500mm high over full length |  |
|  | * Watertight hydraulic door with safety device |  |
|  | * Rear hydraulic door electrically operated from the rear and middle of the chassis side with audible warning |  |
| 4 | MOVING FLOOR |  |
|  | * Loading and unloading system by aluminium slats operated by hydraulic cylinders |  |
|  | * Full width Hardox wearplate at the rear folded 50mm down the back panel |  |
|  | * Juices collection tank (≥180 litres) between the steel chassis frames |  |
|  | * Control system placed inside a watertight box in wheelbase |  |
|  | * Powered by hydraulic circuit of the tractor |  |
| 5 | CANVAS |  |
|  | * Steel frame with nets |  |
|  | * 2 half-nets fitted with mobile cable insert |  |
|  | * Operated by 2 hydraulic motors fixed on front bulkhead |  |
| 6 | MISCELLANEOUS |  |
|  | * 3 meters ladder located in front |  |
|  | * CE approved polyurethane mud wings with rear mud flaps |  |
|  | * Single spare wheel carrier galvanized in wheelbase |  |
|  | * Side bars as cyclist fenders |  |
|  | * Side signs including blind spot marking |  |
|  | * Side and rear marking with stripes according to UNECE Regulation 48 - ECE104 |  |
|  | * 6 kg fire extinguisher inside box |  |

# Spare Parts

|  |  |  |
| --- | --- | --- |
| No. | Purchaser’s requirements | Comment on compliance with technical specifications |
| Lot 1 |  |  |
| Item 2 |  |  |
| Item 2.1 | For each truck: Engine |  |
|  | * 1 set of all filters (air filter, oil filter, gas-oil filter, …) |  |
|  | * 1 set of belts |  |
| **Item 2.2** | For each truck: Hydraulics |  |
|  | * 1 set of filters |  |
|  | * 1 set of seals for all the cylinders |  |
|  | * 1 set of all the hoses |  |
| **Item 2.3** | For the full lot |  |
|  | * 1 set of all the cylinders |  |
|  | * 1 set of all the spindles for the mounting of the cylinders |  |
|  | * 1 set of all the hydraulic distributors |  |
|  | * 1 hydraulic pump |  |
| Lot 2 |  |  |
| Item 3 | Spare parts for Truck for standard collection of municipal waste – rear loading, capacity 12-14 m3 |  |
| Item 3.1 | For each truck: Engine |  |
|  | * 1 set of all filters (air filter, oil filter, gas-oil filter, …) |  |
|  | * 1 set of belts |  |
| **Item 3.2** | For each truck: Hydraulics |  |
|  | * 1 set of filters |  |
|  | * 1 set of seals for all the cylinders |  |
|  | * 1 set of all the hoses |  |
| **Item 3.3** | For the full lot |  |
|  | * 1 set of all the cylinders |  |
|  | * 1 set of all the spindles for the mounting of the cylinders |  |
|  | * 1 set of all the hydraulic distributors |  |
|  | * 1 hydraulic pump |  |
| Item 4 | Spare parts for Truck for standard collection of municipal waste – rear loading, capacity 16-18 m3 |  |
| Item 4.1 | For each truck: Engine |  |
|  | * 1 set of all filters (air filter, oil filter, gas-oil filter, …) |  |
|  | * 1 set of belts |  |
| **Item 4.2** | For each truck: Hydraulics |  |
|  | * 1 set of filters |  |
|  | * 1 set of seals for all the cylinders |  |
|  | * 1 set of all the hoses |  |
| **Item 4.3** | For the full lot |  |
|  | * 1 set of all the cylinders |  |
|  | * 1 set of all the spindles for the mounting of the cylinders |  |
|  | * 1 set of all the hydraulic distributors |  |
|  | * 1 hydraulic pump |  |
| Lot 3 |  |  |
| Item 3 | For each tractor: Engine |  |
|  | * 1 set of all filters (air filter, oil filter, gas-oil filter, …) |  |
|  | * 1 set of belts |  |
|  | For the full lot |  |
|  | * 1 hydraulic pump |  |
| Item 4 | For the full lot of semitrailers |  |
|  | * 1 set of all the hydraulic distributors |  |
|  | * 20 blades of moving floor |  |

# Training

The Supplier shall organise the training for the Purchaser’s personnel.

The aim of the training is to acquaint Purchaser’s personnel with the basic and special functions of the vehicles in particular for operation, maintenance, and transfer data.

The training shall be held at the address:

|  |  |
| --- | --- |
| Company | ME Regia “Autosolubritate” |
| Street Address | 27 Martie 1918 st., 14 |
| City | Chisinau |
| Country | Moldova |

**Lot 1 Item 3 Training**

|  | **Required Characteristics** | **Proposed Characteristics** |
| --- | --- | --- |
| 3.1 | Training in Russian/Romanian language |  |
| 3.2 | Training in operational regulations for 5 engineering and technical personnel and 6 drivers according to the programme. The programme shall comprise:  *Theoretical training (24 hours):*   * The material part of the special machine (designation, technical characteristics, mechanism and operation, handling instructions, make-ready, adjustment, control of technical condition, operational procedure, maintenance, possible failures and methods of repair, storage). * Labour protection requirements, security measures, fire safety.   *Practical training (8 hours per person):*   * Make-ready, operational procedure, failures and repairs, maintenance, driving   Training materials  Training place – premises of ME Regia “Autosolubritate”.  Travel costs, accommodation, meals, travel expenses of its own representative have to be borne by the Supplier. |  |
| 3.3 | Training for technical and engineering personnel – 3 people – for further training of drivers in accordance with the programme.  The programme shall include:  *Theoretical training (minimum 40 hours):*   * Material part of the special machine (designation, technical characteristics, structure and work, exploitation instructions, make-ready, regulating operation, control of technical condition, working order, technical support services, possible failures and methods of their reparation, storage). * Labour protection requirements, security measures, fire security.   Training materials  Training place – premises of the ME Regia “Autosolubritate”.  Travel costs, accommodation, meals for representatives of the Purchaser have to be borne by the Supplier. |  |
| 3.4 | Upon the completion of training by staff specified under 5. 2, a certificate on running and maintenance is issued |  |
| 3.5 | Upon the completion of training by engineering and technical personnel specified under 5.3, a certificate on technical operation is issued, as well as there is a possibility to continue own staff training in operation |  |

**Lot 2 Item 5 Training**

|  | **Required Characteristics** | **Proposed Characteristics** |
| --- | --- | --- |
| 5.1 | Training in Russian/Romanian language |  |
| 5.2 | Training in operational regulations for 5 engineering and technical personnel and 30 drivers according to the programme. The programme shall comprise:  *Theoretical training (24 hours):*   * The material part of the special machine (designation, technical characteristics, mechanism and operation, handling instructions, make-ready, adjustment, control of technical condition, operational procedure, maintenance, possible failures and methods of repair, storage). * Labour protection requirements, security measures, fire safety.   *Practical training (8 hours per person):*   * Make-ready, operational procedure, failures and repairs, maintenance, driving   Training materials  Training place – premises of ME Regia “Autosolubritate”.  Travel costs, accommodation, meals, travel expenses of its own representative have to be borne by the Supplier. |  |
| 5.3 | Training for technical and engineering personnel – 3 people – for further training of drivers in accordance with the programme.  The programme shall include:  *Theoretical training (minimum 40 hours):*   * Material part of the special machine (designation, technical characteristics, structure and work, exploitation instructions, make-ready, regulating operation, control of technical condition, working order, technical support services, possible failures and methods of their reparation, storage). * Labour protection requirements, security measures, fire security.   Training materials  Training place – premises of the ME Regia “Autosolubritate”.  Travel costs, accommodation, meals for representatives of the Purchaser have to be borne by the Supplier. |  |
| 5.4 | Upon the completion of training by staff specified under 5. 2, a certificate on running and maintenance is issued |  |
| 5.5 | Upon the completion of training by engineering and technical personnel specified under 5.3, a certificate on technical operation is issued, as well as there is a possibility to continue own staff training in operation |  |

**Lot 3 Item 5 Training**

|  | **Required Characteristics** | **Proposed Characteristics** |
| --- | --- | --- |
| 5.1 | Training in Russian/Romanian language |  |
| 5.2 | Training in operational regulations for 5 engineering and technical personnel and 8 drivers according to the programme. The programme shall comprise:  *Theoretical training (24 hours):*   * The material part of the special machine (designation, technical characteristics, mechanism and operation, handling instructions, make-ready, adjustment, control of technical condition, operational procedure, maintenance, possible failures and methods of repair, storage). * Labour protection requirements, security measures, fire safety.   *Practical training (8 hours per person):*   * Make-ready, operational procedure, failures and repairs, maintenance, driving   Training materials  Training place – premises of ME Regia “Autosolubritate”.  Travel costs, accommodation, meals, travel expenses of its own representative have to be borne by the Supplier. |  |
| 5.3 | Training for technical and engineering personnel – 3 people – for further training of drivers in accordance with the programme.  The programme shall include:  *Theoretical training (minimum 40 hours):*   * Material part of the special machine (designation, technical characteristics, structure and work, exploitation instructions, make-ready, regulating operation, control of technical condition, working order, technical support services, possible failures and methods of their reparation, storage). * Labour protection requirements, security measures, fire security.   Training materials  Training place – premises of the ME Regia “Autosolubritate”.  Travel costs, accommodation, meals for representatives of the Purchaser have to be borne by the Supplier. |  |
| 5.4 | Upon the completion of training by staff specified under 5. 2, a certificate on running and maintenance is issued |  |
| 5.5 | Upon the completion of training by engineering and technical personnel specified under 5.3, a certificate on technical operation is issued, as well as there is a possibility to continue own staff training in operation |  |