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| **Annex II + III** |

**Technical Specifications and Offer**

**ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER**

**Contract title: Water Supply and Sewerage Improvements and Construction of Waste Water Treatment Plant in the Municipality of Knin**

**-Supply of Operational and Maintenance Equipment**

**Publication reference: EuropeAid/130475/D/SUP/HR**

Annex III – the Contractor’s technical offer

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

* Column 2 has been completed by the Contracting Authority and show 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
* Column 5 is reserved for the evaluation committee

**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 offeredspecifications.

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

**SEWERAGE MAINTENANCE VEHICLE**

| **1.**  **Item Number** | **2.**  **Specifications Required** | **3.**  **Specifications Offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation Committee’s notes**  **YES/NO** |
| --- | --- | --- | --- | --- |
| **1** | **Combination Suction Flushing Vehicle 9 m3 – Tank without Water Recycler – Quantity 1** |  |  |  |
|  | This vehicle shall be provided in order to carry personnel and necessary materials for sewer operation and maintenance activities. |  |  |  |
| **1.1** | **Chassis** |  |  |  |
| **1.1.1** | TYPE OF VEHICLE: Flatbed truck and chassis |  |  |  |
| **1.1.2** | Wheelbase: min. 4400 mm |  |  |  |
| **1.1.3** | Overhang: min. 2300 mm |  |  |  |
| **1.1.4** | Steering: L |  |  |  |
| **1.1.5** | Front axle load min. 7,5 t |  |  |  |
| **1.1.6** | Rear axle load min. 13 t |  |  |  |
| **1.1.7** | Permissible gross weight : min. 19 t |  |  |  |
| **1.1.8** | Front wheels: 2 with tires – with such dimensions to ensure full functionality of vehicle |  |  |  |
| **1.1.9** | Rear wheels: 4 with tires – with such dimensions to ensure full functionality of vehicle |  |  |  |
| **1.1.10** | Spare wheel: 1 \* 315/80R22,5 |  |  |  |
| **1.1.11** | Spare wheel: 1 with tire in the dimensions of the rest of the wheels |  |  |  |
|  | **Equipment for Vehicle 9 m3** |  |  |  |
| **1.2** | **Engine, Cooling system and clutch** |  |  |  |
| **1.2.1** | Motor minimum 325 HP / 240 kW, achieving the EURO 5 standard without additives, Common Rail |  |  |  |
| **1.2.2** | EDC (Electronic diesel control) engine regulation |  |  |  |
| **1.2.3** | Fuel filter with additional water trap |  |  |  |
| **1.2.4** | Fuel filter heating |  |  |  |
| **1.2.5** | Control module for external data exchange with body functions |  |  |  |
| **1.2.6** | Regulated rocker arm brake |  |  |  |
| **1.2.7** | Flame starting system |  |  |  |
| **1.2.8** | Single-plate clutch |  |  |  |
| **1.2.9** | Speed limiter electronic 85 km/h and cruise control |  |  |  |
| **1.2.10** | Anti-noise package 80 dB (92/97EEC) |  |  |  |
| **1.2.11** | Confirmation for international registration |  |  |  |
| **1.2.12** | Provision for engine start and stop at frame end |  |  |  |
| **1.3** | **Transmission Gear Box** |  |  |  |
| **1.3.1** | Transmission Gear Box 9 + 1 gears MANUAL |  |  |  |
| **1.4** | **Intake/Exhaust System** |  |  |  |
| **1.4.1** | Air intake to be raised and with a dry air filter |  |  |  |
| **1.4.2** | The exhaust to be upswept left |  |  |  |
| **1.5** | **Front Axle/Front Springs/Front Axle Load** |  |  |  |
| **1.5.1** | Front axle dropped |  |  |  |
| **1.5.2** | Front springs parabolic minimum 7,5 t |  |  |  |
| **1.5.3** | Stabilizer for front axle |  |  |  |
| **1.5.4** | Permissible front axle load minimum 7,5 t |  |  |  |
| **1.6** | **Rear Axle/Rear Springs/Rear Axle Load** |  |  |  |
| **1.6.1** | Rear air suspension, minimum 13 t |  |  |  |
| **1.6.2** | Hypoid rear axle |  |  |  |
| **1.6.3** | Differential lock in rear axle |  |  |  |
| **1.6.4** | ECAS air suspension |  |  |  |
| **1.6.5** | Stabilizer on rear axle |  |  |  |
| **1.6.6** | Permissible rear axle load minimum 13 t |  |  |  |
| **1.7** | **Fuel Tank** |  |  |  |
| **1.7.1** | Fuel tank capacity: minimum 150 litres on right hand side with strainer with key |  |  |  |
| **1.8** | **Steering** |  |  |  |
| **1.8.1** | Steering wheel to have height and inclination adjustment |  |  |  |
| **1.8.2** | Steering wheel lock with immobiliser |  |  |  |
| **1.9** | **Frame** |  |  |  |
| **1.9.1** | Bumper to be synthetic |  |  |  |
| **1.10** | **Electronic Brake System** |  |  |  |
| **1.10.1** | Anti-lock braking system (ABS) |  |  |  |
| **1.10.2** | Anti-spin regulator (ASR) |  |  |  |
| **1.10.3** | Disc brake for front axle |  |  |  |
| **1.10.4** | Disc brake for rear axle |  |  |  |
| **1.10.5** | Asbestos-free brake linings |  |  |  |
| **1.10.6** | Air dryer |  |  |  |
| **1.11** | **Cab Exterior** |  |  |  |
| **1.11.1** | Central locking |  |  |  |
| **1.11.2** | Right and left kerb mirror |  |  |  |
| **1.11.3** | Front mirror on co-driver's side in accordance with Directive 2003/97/EU |  |  |  |
| **1.11.4** | Cab rear wall without windows |  |  |  |
| **1.11.5** | Colour of cab: RAL 5015 (sky blue) |  |  |  |
| **1.12** | **Cab Interior** |  |  |  |
| **1.12.1** | Driver’s seat with air suspension |  |  |  |
| **1.12.2** | Co-drivers’ bench for 2 persons |  |  |  |
| **1.12.3** | Air conditioning system with automatic temperature control without CFC and HCFC |  |  |  |
| **1.12.4** | Fine dust and pollen filter |  |  |  |
| **1.12.5** | Electric door window lifters for driver and co-driver |  |  |  |
| **1.13** | **Instruments** |  |  |  |
| **1.13.1** | Digital calibrated tachograph |  |  |  |
| **1.13.2** | On-board computer |  |  |  |
| **1.13.3** | Display in instrument panel: |  |  |  |
| **1.13.4** | Language 1 'Croatian'  Language 2 ‘English’ |  |  |  |
| **1.13.5** | Display of operating data |  |  |  |
| **1.13.6** | Acoustic warning system for engaged reverse gear at frame end |  |  |  |
| **1.13.7** | Charging pressure indicator |  |  |  |
| **1.14** | **Lights** |  |  |  |
| **1.14.1** | Halogen twin headlights for right-hand traffic |  |  |  |
| **1.14.2** | 2 Halogen revolving beacons yellow on cab roof left and right |  |  |  |
| **1.15** | **Electrical System** |  |  |  |
| **1.15.1** | One-tone electric horn |  |  |  |
| **1.15.2** | Batteries: 2 x min. 12V 120 Ah |  |  |  |
| **1.15.3** | Alternator min. 28 V, 80A, 2240W |  |  |  |
| **1.16** | **Standard package of a vehicle** |  |  |  |
| **1.16.1** | Antifreeze down to -25 degrees Celsius |  |  |  |
| **1.16.2** | Mud-flap front and rear , original rear mudguards and side protection |  |  |  |
| **1.16.3** | Synthetic mudguards, 3-part, with mud flaps |  |  |  |
| **1.16.4** | Safety equipment according to Croatian standard (First-aid kit, chains, fire extinguisher, hazard sign and lamp etc) |  |  |  |
| **1.17** | **Load variant** |  |  |  |
| **1.17.1** | Load variant min. 19 t |  |  |  |
| **1.18** | **Suction/High-Pressure Jetting Installation** |  |  |  |
| **1.18.1** | The suction/high-pressure jetting installation shall be provided for hydrodynamic cleaning and removal of blockings in sewer lines and for transportation of non-combustible liquid and sludge. |  |  |  |
| **1.19** | **Tank** |  |  |  |
| **1.19.1** | Material of tank:  Steel S355J2+N (according to EN 10025) or similar; reinforced vacuum and pressure resistant |  |  |  |
| **1.19.2** | Volume of tank minimum: 9 m3 |  |  |  |
| **1.19.3** | Operating pressure of vacuum tank minimum 0,5 bar |  |  |  |
| **1.19.4** | - tipping by means of a hydraulic cylinder equipped with a controlled safety valve to prevent the tank from falling by gravity in case the hydraulic system has a fault |  |  |  |
| **1.19.5** | - tank support saddle fastened to the counter frame, for preventing dangerous displacements and the break of the tank sheets |  |  |  |
| **1.19.6** | - pneumatic blocking cylinder for the tank during the transport |  |  |  |
| **1.19.7** | Tank division through a fix wall: |  |  |  |
| **1.19.8** | - minimum 3000 l water (no vacuum tank) / minimum 6000 l sludge (vacuum tank) |  |  |  |
| **1.19.9** | - opening rear bottom hydraulically operated by means of min. 2 double-effect hydraulic pistons equipped with controlled safety valve to prevent the tank from closing by gravity in case the hydraulic system has a fault |  |  |  |
| **1.19.10** | - Rear bottom lock to the tanks sheets by means of wedges operated by double effect hydraulic cylinders |  |  |  |
| **1.19.11** | - Water load with STORZ C hydrant connection |  |  |  |
| **1.19.12** | - Qty 1 column water level indicator |  |  |  |
| **1.19.13** | - Qty 1 x 4” pneumatic suction gate valve equipped with coupling |  |  |  |
| **1.19.14** | - Qty 1 x 4”pneumatic discharge gate valve equipped with coupling |  |  |  |
| **1.19.15** | Overfull stainless steel ball valve inside the tank. Pneumatic valve between the tank and the cyclone. |  |  |  |
| **1.20** | **TOP SUCTION HOSE REEL with telescopic ARM** |  |  |  |
|  | Equipped with: |  |  |  |
| **1.20.1** | - swivelling joint connected to the sludge compartment |  |  |  |
| **1.20.2** | - Pneumatic operated shut off valve |  |  |  |
| **1.20.3** | - Directional ARM for hose guiding |  |  |  |
| **1.20.4** | - Equipped with min. 18 m x DN125 rubber hose with ball coupling |  |  |  |
|  | Possible hydraulic operations: |  |  |  |
| **1.20.5** | - Hose payout/retrieve |  |  |  |
| **1.20.6** | - left/right rotation of the directional arm for approx. 270° |  |  |  |
| **1.20.7** | - lifting/lowering of the directional arm |  |  |  |
| **1.20.8** | - Hydraulic telescopic arm |  |  |  |
| **1.20.9** | Controls on the control panel and on the remote control. |  |  |  |
|  | **Equipment for Sucking/Blowing Installation** |  |  |  |
| **1.21** | **Vacuum pump:** |  |  |  |
| **1.21.1** | - Type: Rotary blower air cooled vacuum pump |  |  |  |
| **1.21.2** | - Mechanical transmission of power from PTO |  |  |  |
| **1.21.3** | - Without lubrication (no oil consumption) and without tear and wear components, no water cooling |  |  |  |
| **1.21.4** | -CLEANING CYCLONE with filtration of impurities |  |  |  |
| **1.21.5** | - Power: minimum 90% vacuum |  |  |  |
| **1.21.6** | - Volume with free passage of air min. 2400 m³/h |  |  |  |
| **1.21.7** | Electric counter of operating hours in the chassis cab |  |  |  |
| **1.21.8** | 2 separate lines with pneumatic butterfly valve to create vacuum and pressure |  |  |  |
| **1.21.9** | Safety valve: for pressure limitation of minimum 0,5 bar operating pressure |  |  |  |
| **1.22** | **Equipment for High-Pressure Jetting Installation** |  |  |  |
| **1.22.1** | High pressure piston pump with valve cleaning system without opening the pump: |  |  |  |
| **1.22.2** | - Containing electric counter of operating hours |  |  |  |
| **1.22.3** | - Mechanical transmission of power from PTO |  |  |  |
| **1.22.4** | - AUTOMATIC MINIMUM WATER LEVEL CUT-OFFswitch with visual warning light to protect the pump from running dry |  |  |  |
| **1.22.5** | - Water filtering unit |  |  |  |
| **1.22.6** | - Water pressure adjustment valve |  |  |  |
| **1.22.7** | - Operating pressure: min. 150 bar |  |  |  |
| **1.22.8** | - Flow: min. 330 l/min |  |  |  |
| **1.22.9** | - centrifugal pre-feeding pump (to grant constant pressure and prevents cavitations) |  |  |  |
| **1.23** | **Radio Remote Control with Joy Stick** |  |  |  |
| **1.23.1** | Emergency OFF |  |  |  |
| **1.23.2** | Vacuum pump suction / pressure |  |  |  |
| **1.23.3** | RPM + / - |  |  |  |
| **1.23.4** | Suction valve OPEN/CLOSE |  |  |  |
| **1.23.5** | Empty valve OPEN/CLOSE |  |  |  |
| **1.23.6** | All movements of the suction hose reel with arm |  |  |  |
| **1.23.7** | Pressure pump: ON/OFF |  |  |  |
| **1.23.8** | Pressure regulation from 0-150 bar |  |  |  |
| **1.23.9** | High-pressure hose 1” |  |  |  |
| **1.23.10** | - Roll in and out |  |  |  |
| **1.23.11** | - Speed regulation |  |  |  |
| **1.24** | **High Pressure Front Horizontal High Pressure Hose Reel** |  |  |  |
| **1.24.1** | **-** Stainless steel made |  |  |  |
| **1.24.2** | - Hinged on the front bottom of the tank |  |  |  |
| **1.24.3** | - Hydraulic hose payout/retrieve |  |  |  |
| **1.24.4** | - Roll out/in speed adjustment |  |  |  |
| **1.24.5** | - Automatic hose guide; it allows hose retrieve operations also at a distance by means of a remote control |  |  |  |
| **1.24.6** | - Pressing device for uniform hose winding |  |  |  |
| **1.24.7** | - Swivelling joint in stainless steel |  |  |  |
| **1.24.8** | - Equipped with mini. 120 m x 1” hose |  |  |  |
| **1.24.9** | - Hydraulically operated rolls aimed at keeping straight the high pressure hose |  |  |  |
|  | **PTO ON THE TRANSMISSION SYSTEM** |  |  |  |
| **1.25** | **VERTICAL INTEGRAL POWER TAKE OFF** |  |  |  |
| **1.25.1** | Mounted between gear box and differential. |  |  |  |
| **1.25.2** | High pressure pump and vacuum pump are mounted between cabin and tank on a separate frame |  |  |  |
| **1.25.3** | - Closed Galvanized steel hose and tool box on the right side with stainless steel doors, open hose box in galvanized steel on the left side |  |  |  |
| **1.25.4** | - Rear chute for tank dumping and protection of the rear part of the chassis in stainless steel with marbling finish |  |  |  |
| **1.25.5** | - Connection in stainless steel for the vacuum pump and high pressure pump to work also with tipped up tank for continuous operation; possibility of sludge dumping with tank under pressure |  |  |  |
| **1.25.6** | - Qty 1 rotating beacon |  |  |  |
| **1.25.7** | - Qty 1 work beams |  |  |  |
| **1.25.8** | - Qty 1 portable work beam with 13 m cable on reel up drum |  |  |  |
| **1.25.9** | Movable aluminium ladder, length of at least 3500 mm, to be fixed on chassis frame |  |  |  |
| **1.26** | **Varnishing of Superstructure** |  |  |  |
| **1.26.1** | Sand-blasting: Of all individual parts of superstructure |  |  |  |
| **1.26.2** | Varnishing: Multi-layer varnishing of all individual parts of superstructure |  |  |  |
| **1.26.3** | Colour: RAL 5015 (sky blue) |  |  |  |
| **1.27** | **Training** |  |  |  |
| **1.27.1** | Operational training for 10 days for at least 2 persons. The training should be provided in Croatian language. |  |  |  |
| **1.28** | **Other** |  |  |  |
| **1.28.1** | Operating manual in CROATIAN (3 copies) and ENGLISH (1 copy) |  |  |  |

**After-sales services**

| **1.**  **Item** | **2.**  **Specifications Required** | | **3.**  **Specifications Offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation Committee’s notes YES/NO** |
| --- | --- | --- | --- | --- | --- |
| **AFS 1** | Response time | on-site response by the end of next business day (17h), following the request for service, during 3 years of warranty (1 year standard warranty and 2 years commercial warranty)  Tenderer must provide a detailed description of the organisation of the proposed service (e.g. name of the authorised service provider) |  |  |  |
| **AFS 2** | Repair time | Maximum one month time period in case that **major defaults**[[1]](#footnote-1) are detected and maximum 10 days period in case of **minor repairs**[[2]](#footnote-2) during three years of warranty (1 year warranty + 2 years commercial warranty).Tenderer must provide a detailed description of the organisation of the proposed service (e.g. name of the authorised service provider) |  |  |  |
| **AFS3** | Commercial warranty covering all the supplied equipment and its components | 2 years (after the end of 1 year standard warranty) in accordance with the conditions laid down in Article 32 of the General Conditions and Article 33 of the Special Conditions. Tenderer must provide a detailed description of the organisation of the proposed service (e.g. name of the authorised service provider) |  |  |  |

Done at: ………………………,../../.. by (name) ………………………………….

On behalf of ………………………… (tenderer's stamp and signature)

1. **Major defaults -** covers any defaults which does not allow functionality or operation of the suction flushing vehicle [↑](#footnote-ref-1)
2. **Minor repairs –** includes everything which hinders full functionality or operation of the suction flushing vehicle, or limits safety and security of personnel operating the vehicle [↑](#footnote-ref-2)