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

**Contract title: Supply of equipment for sampling, laboratory analysis and consumables for detecting the microplastics in water for the project MICROPLASTICS p 1 /8**

**Publication reference:** **01-94/8/HU-SRB supply**

**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 offeredspecifications.

**LOT no. 3- Sampling equipment and consumables**

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| --- | --- | --- | --- | --- |
| **1.**  **Item number** | **2.**  **Specifications required** | **3.**  **Specifications offered** | **4.**  **Notes, remarks,**  **ref to documentation** | **5.**  **Evaluation committee’s notes** |
| **1** | **Manta trawl net with digital flow meter with the following specification- 2 pcs**   |  | | --- | | **Manta net**  • Aperture size: 60 x 25 cm  • Front, width x height: 60 x 50 cm  • Manufactured from sea water resistant aluminium Almg3 5754 H111  • Mesh size 300 μm;  • Net length: 350 cm  • Overall length, incl. bridle: 600 cm approx.  • Buoyancy to sample on the water surface  • More options to adjust the height and buoyancy angle  • Incl. sample cylinder with a small buoyancy  **Digital flow meter**  • Exclusive back-run stop  • Counter: 5 digits  • Diameter of propeller and counter body: Ø70/32 mm  • Length: 190 mm  • Recommended for horizontal operation  Bracket for flow meter  • AISI 316 stainless steel  • Support for flow meter |   It is required to submit for the purpose of verifying technical specification **a catalog/brochure,** or similar document, or an excerpt from a catalog, brochure, or similar document, based on which the technical characteristics of the offered equipment can be unequivocally determined, thereby proving without doubt that the offered supply meet all the required technical specifications. |  |  |  |
| **2** | **Stainless steel sieves with the following specification – 6 pcs total**  **2 pcs:**   |  | | --- | | Frame and mesh wire made of stainless steel with compliance certificate max. 400 mm dia., useful height max. 65 mm  Mesh width 5.6 mm mesh  **2 pcs:**  Frame and mesh wire made of stainless steel with compliance certificate max. 400 mm dia., useful height max. 65 mm  Mesh width 1 mm mesh  **2pcs:**  Frame and mesh wire made of stainless steel with compliance certificate max. 400 mm dia., useful height max. 65 mm  Mesh width 0.3 mm mesh  It is required to submit for the purpose of verifying technical specification a catalog/brochure, or similar document, or an excerpt from a catalog, brochure, or similar document, based on which the technical characteristics of the offered equipment can be unequivocally determined, thereby proving without doubt that the offered supply meet all the required technical specifications. | |  |  |  |
| **3** | **Ultrapure Lab Water Purification System with a system for pretreatment of inlet water with the following specifications- 1 pc:**  Resistivity at 25 °C: Conductivity 0.055 μS/cm, Resistance 18.2 MΩ x cm  TOC: ≤ 5 ppb (μg/L)  Particles / ml: < 1; with sterilizing filter 0.2 μm;  Bacteria: < 0.1 CFU/mL  Dispensing performance: Up to 2 L/min  Operating pressure: 0.5-6 bar  Ambient temperature: + 2 up to + 35°C  It is required to submit for the purpose of verifying technical specification a catalog/brochure, or similar document, or an excerpt from a catalog, brochure, or similar document, based on which the technical characteristics of the offered equipment can be unequivocally determined, thereby proving without doubt that the offered supply meet all the required technical specifications. |  |  |  |
| **4** | **Ultrasonic bath with the following specification- 1 pc:**  Ultrasonic bathtub with heating  Capacity: 10-15L  With handles and level marking  Work content: 9 L  Ultrasonic frequency: min 35 KHz  Heating: 30-80°C  Drain cock included  Tank material: Stainless steel  Tub thickness: 0.8mm  Timer: minimum 1-15 minutes with automatic shutdown  Operating voltage 230V ±10%, 50/60Hz  Inner hanging basket with handles, stainless steel  It is required to submit for the purpose of verifying technical specification a catalog/brochure, or similar document, or an excerpt from a catalog, brochure, or similar document, based on which the technical characteristics of the offered equipment can be unequivocally determined, thereby proving without doubt that the offered supply meet all the required technical specifications. |  |  |  |
| **5** | **Device for measuring dissolved oxygen concentration with the following specification- 1 pc:**  Measurement parameters: Dissolved oxygen (DO)  DO measurement range: 0.0-50 mg/L (ppm)  All values ± 1 digit  DO resolution: 0.01 ppm  DO measurement range saturation: 0% - 400%  DO saturation resolution: 0.1%  Temperature range: min 0°C - 50°C  DO probe with protective sleeve, internal temperature sensor and cable  Calibration: automatic one or two point at 100 % (8.26 mg/L) and 0 % (0 mg/L).; manual one point using a value entered by the user in % saturation or mg/L  It is required to submit for the purpose of verifying technical specification a catalog/brochure, or similar document, or an excerpt from a catalog, brochure, or similar document, based on which the technical characteristics of the offered equipment can be unequivocally determined, thereby proving without doubt that the offered supply meet all the required technical specifications. |  |  |  |
| **6** | **Chemicals with the following specification- 5 pc total**  1. FeSO4 x 7H2O, ≥99%, 250g  2. cc H2SO4, 95-98%, 1L  3. 30% H2O2, 2L  4. NaCl, ≥99%, 1kg  5. Ethanol, ≥95%, 2L  It is required to submit for the purpose of verifying technical specification a catalog/brochure, or similar document, or an excerpt from a catalog, brochure, or similar document, based on which the technical characteristics of the offered equipment can be unequivocally determined, thereby proving without doubt that the offered supply meet all the required technical specifications. |  |  |  |
| **7** | **Reference materials with the following specification- 3 pcs total**  1. Reference Material BAM-P202 Polystyrene (PS), Particle size D in μm: 91, 206, 311  2. Reference Material BAM-P201 Artificially aged Polyethylene (PE), Particle size in μm: 17.9, 61.2, 158.6  3. Reference Material BAM-P206 Polyethylene terephthalate (microplastic powder), Particle size in μm: 30.5, 62.6, 107  It is required to submit for the purpose of verifying technical specification a catalog/brochure, or similar document, or an excerpt from a catalog, brochure, or similar document, based on which the technical characteristics of the offered equipment can be unequivocally determined, thereby proving without doubt that the offered supply meet all the required technical specifications. |  |  |  |
| **8** | **Basic laboratory equipment and dishis with the following specification- 12 pcs total**  1. Vacuum filtration equipment for dia. 47 mm membranes, ground glass, 1L, Borosilicate glass filtration equipment 3.3 Composed by: 300ml filtration funnel, porous plate body ᴓ47mm, filtering flask ground 40/35, 1000ml, aluminium clamp- 1 pc  2. A glass funnel (122-mm in diameter)- 5 pcs  3. Lab stend set: stainless steel rod min 50cm height, powder coated support base, metal retord ring for funnel (122-mm in diameter), cork-lined clamp with bosshead- 5 pcs  4. Nylon filter mesh, roll length 30-100m/Roll, with mesh size: 5mm, 1mm, 0.3mm- 1 pc  It is required to submit for the purpose of verifying technical specification a catalog/brochure, or similar document, or an excerpt from a catalog, brochure, or similar document, based on which the technical characteristics of the offered equipment can be unequivocally determined, thereby proving without doubt that the offered supply meet all the required technical specifications. |  |  |  |
| **9** | **Training**  The Contractor has the obligation to provide the Contracting Authority with appropriate training in the use of the appliances after delivery and installation of supplies. Accordingly, training related to the use of purchased equipment (not materials) will be carried out in 3 days for maximum 10 persons. Trained staff should receive training certificates upon completion of the training. |  |  |  |
| **10** | **After-sales service**  After-sales and maintenance service for one year.  All service technicians must be authorized and certified by the equipment manufacturer. |  |  |  |