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

**Contract title:** Laboratory equipment for the purposes and functioning of the scientific laboratories of the BLUE GROWTH Research centre at “Prof. D-r Asen Zlatarov” University of Burgas

Lot 4 Supply of a ball mill and a crusher for the purposes of the Aquaculture and Biotechnology Lab  **p 1/…**

**Publication reference:** CB005.3.12.001 - LP – Supply 3

**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.

| **1.**  **Item number** | **2.**  **Specifications required** | **3.**  **Specifications offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation committee’s notes** |
| --- | --- | --- | --- | --- |
| **1.** | Ball mill – 1 pc  Action principle: - power; Applicable for materials - solid, mid solid, soft, fragile, tough, wet; number of working stations -1; Grinding tools - grinding bowls and balls; Material of grinding tools -agate, sintered corundum, silicon nitride, zirconia, hardened stainless steel, hard metal tungsten carbide; Grinding jar sizes - 80, 250, 500 ml; Grinding ball diameter -0,1 - 40 mm; maximum feed size (depends on the material) -10 mm; Sample minimum volume-10 ml; Sampling maksimum volume-225 ml; Final Fineness (depends on the material) - <1 µm; Typical time for grinding - 4 min.; Grinding process - dry/wet; Inert gas grinding; Gas pressure and temperature measurement feature, Spee of main disk spinning -100-650 rpm; Effective diameter of the main disc -121,6 mm; Centrifugal acceleration (g = 9,81 m / s²) -29 g; Interfaces feature; Electricity -100-120 / 200-240 V / 1 ~, 50-60 Hz, 1000 Watt  Level of sound pressure emmissions at the working place according to DIN EN ISO 3746 (according to the materials to be grinded, grinding bowls/ balls, selected speed of spinning) up to LpAd=85 dB, agate mortar and balls  The equipment should be guaranteed for at least 2 year against any manufacturing and assembly defects. Spare parts and service must be guaranteed for 10 years after the end of the warranty period. |  |  |  |
| **2.** | Crusher – 1 pc  Principle of action - pressure  Applicable for materials, very solid, solid, average solid, fragile and abrasive samples as well as grinding without metal  Grinding tools - movable and immovable jaws for lubrication ; Materials of the grinding tools - hardened steal, stainless steal, chrome without instrumental steal, manganese steal, solid metal tungsten carbide, zirconium oxide; Max feed size (according to the material) - 95 mm; Min sample quantity - 20 ml; Max continious bandwidth (according to the material and aperture width) - 250 kg / h; Final fineness - 0,3 - 15 mm; Eccentric flutter - 308 per minute; Electricity - 400 V / 3 ~, 50/60 Hz, 3490 Watt; Power: 200 V / 3 ~, 50/60 Hz, 3490 Watt  Level of sound pressure at the working place according to DIN EN ISO 3746 or equivelent (according to the material) approximately LpAd = 83 dB; weight 320 kg.  Approximate dimensions instrument for bench instrument on the top 55 x 90 x 106 sm.  The equipment should be guaranteed for at least 2 year against any manufacturing and assembly defects. Spare parts and service must be guaranteed for 10 years after the end of the warranty period. |  |  |  |
| **3.** | **Press – 1 pc**  Maximum pressure - from 0 to 20 tons; Sample diameter - 40mm  The equipment should be guaranteed for at least 2 year against any manufacturing and assembly defects. Spare parts and service must be guaranteed for 10 years after the end of the warranty period. |  |  |  |