**APPROVED BY:**

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 **«\_\_\_\_\_» \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2020**

# TERMS OF REFERENCE

**for supply, installation and adjustment of turnkey process brewery restaurant equipment with a capacity of 3 600 HL per year- second priority object: “Recreational compound” with an address at: Krasnodar Krai, Sochi, Adler region, village settlement Esto-Sadok, the northern slope of the Aibga Ridge, +960 level**

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| Contract tendered | Supply, installation and adjustment of turnkey process brewery restaurant equipment with a capacity of 3 600 HL per year - second priority object: “Recreational compound” with an address at: Krasnodar Krai, Sochi, Adler region, village settlement Esto-Sadok, the northern slope of the Aibga Ridge, +960 level  |
| Name of object | “Recreational compound” (Second priority) - Brewpub |
| Object location | 354392 Krasnodar Krai, Sochi, Adler region, village settlement Esto-Sadok, the northern slope of the Aibga Ridge, +960 level  |
| Type of construction | New construction |
| Work completion time (stages) and terms of work | Delivery period and work completion time should be not more than 11 (eleven) months from date of making the prepayment. |
| Type and scope of performing works | The scope of installation and commissioning work should include (but not be limited to):1. CAD layout plan which includes:
* drainage incl. needed inclination of the floor;
* all needed electrical connection points;
* all needed water connection points;
* minimum room heights;
* floor loads.

b) Technical check list for each room with brewery equipment with a description of the technical requirements like floor loads, electrical connections and water connections, needed fresh air and type of the floors and walls.c) Installation of brewing equipment;d) Piping of equipment.e) Commissioning and producing of two batches of beer.f) Transfer of documentation for the equipment including technological documents for the equipment, as-built drawings, concealed works acceptance acts, tests, etc. according to the existing legislative system. |
| Requirements to employed materials and equipment | 1. The Contractor provides by himself the necessary materials and equipment.2. The quality of the equipment supplied must comply with the standards specified in the certificate of the manufacturer and the international quality standards according to the CE norms.3. Technological brewing equipment with the total capacity 3600 HL per year (with further possible expansion of production) should contain the following units:* Malt grinding system with grinder output of 1 200 kg per hour and with direct transportation of grinded malt to boiler.
* Brewing line:
	+ 2000 L per brewing;
	+ the possibility of infusion mash and mashing-off method; (possibility of mashing by the tincture method and the cooking method)
	+ copper decorative coating of the boiling pots;
	+ three-vessel brewing line including the wort kettle, the mash&lauter tun and the whirlpool;
	+ Two heating options: internal calorifier (calandria) without forced circulation (without pump) and heating bottom;
	+ The mash&lauter tun ready for the production of both low-density and high-density wort (extractive original wort 20%);
	+ pellet ripper, wide manhole for pellet throw-out;
	+ separate pump for swapping the mash and separate pump for wort lautering.
* Automatisation:
	+ automated mashing and boiling
	+ all valves are pneumatic driving by the control panel on the brewing pot (buttons or sensor screen).
* Wort heat exchanger for wort cooling down during 30-40 minutes.
* Wort cooling down by help of glycol and water (two stage heat exchanger).
* Aeration of wort.
* Vessel equipment:
	+ cylindroconical vessels (20-60 HL): two cooling sections, insulation by PU foam of the cone, cylinder and crown, temperature control, working pressure 2,5 bar; test pressure 4 bar.
	+ dispensing tanks 10 HL for finished beer dispensing in the bar, cooling down by glycol.
* The equipment of the washing and internal steaming of the beer kegs and beer dispensing into the kegs
* Equipment for beer dispensing into the bottles (capacity – 150-200 bottles per hour).
* Refrigerating glycol unit with the ice and glycol tank for wort and beer.
* Compressor and sterilized filters for wort aeration and the work of the pneumatic valves of the brewing unit with the forced air tank 500 L.
* Hose-pipes and full assembly of the auxiliary equipment for the work of the brew-house.
* Full assembly of the equipment for installation of the brew-house (pipes for water, steam, product, glycol, forced air, СО2) made from stainless steel.

4. Brewing equipment is available to be placed in the restaurant in open construction so due to this there are higher requirements according to visual esthetical performance. |
| Performance requirements | 1. The Executor provides the tools required, special machines and equipment to perform the works by himself.2. The Executor provides the transportation of the resources required by himself. 3. The Executor hands over to the Customer 3 (three) samples of the as-built documentation and one DWG/DOC hardcopy sample available to edit before signing Act of Acceptance CC-2. |
| Safety regulations for execution of construction and installation work  | 1. While performing the works it is required to follow all necessary measures of fire-protection and radiation safety, work safety and sanitary, natural environment protection and traffic safety according to the existing regulations in Russian Federation during all Currency of Contract.2. While performing the works the Executor responds to make safe working conditions, safety of the employees; to involve the qualified and experienced employees who has been trained in the fooled of work safety; to use in good repair mechanical device. |
| Special conditions of construction | Seismicity should be assumed as specified by requirements of Handbook of Instructions 14.13330, with the map General Seismic Zoning -2015-А and construction norms of Krasnodar Krai 22-301-2008. |
| Quality warranty | The term of the warranty obligations is at least 12 (twelve) months since the day of the commissioning of the equipment. |
| Performance Expectations | Existence of the positive experience corresponding to the feature of the terms of reference. |
| Involvement of Subcontractor (Joint Contractor) | The Executor has the right to perform the work by himself or to involve the Subcontractors for separate types of the works as agreed by the Customer. |
| Additional requirements  | Specification for the supply of equipment – the Tenderer should provide the detailed specification containing the following information: the name of the equipment, quantity, technical specifications, model, capacity, price per unit, total price of the equipment. |

**Originator:**

**Agreed by:**