

				<b>TECHNICAL SPECIFICATION</b> <b>Техническа спецификация</b>					
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## 1. SCOPE OF WORKS

To supply new spare parts for turbine K-225-130-2M as per the attached requirements and specification of the **Contracting authority**.

## 2. General parameters of the power station

The general design and operating parameters of the power station are as follows:

TPP ContourGlobal Maritsa East 3 is situated at approximately 60 km to the south east of Stara Zagora town, 10 km the the south east of the town of Galabovo and 2 km to the North of the village of Mednikarovo, Haskovo District, near Troyanovo Open pit.

GPS: N–42.143321 and E–26.000856

Reference values of ambient parameters:


- Atmospheric pressure 1004.5 hPa
- Ambient air temperature (max): 45°C
- Ambient air temperature (min): -28.5°C
- Nominal relative humidity: 73%
- Maximal relative humidity: 100%
- Minimal relative humidity: 14%

## 3. Access to ContourGlobal Maritsa East 3 TPP

### 3.1 Working time


The working time of the power station starts at 8 a.m. The warehouse working hours are Monday - Friday from 8:30a.m. to 15:00 p.m. The access for external company's personnel is absolutely forbidden outside the day shift working hours - before 7:30 a.m. and after 04 p.m from Monday to Friday and during the weekend.

### 3.2. Rules for entering the power station during deliveries of goods

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- When letters, packages or small volume goods, which can be carried by hand, are delivered, they are given to the security guards at the main gate, whose duty is to hand them over to the recipient. If the person who has delivered the goods has to enter the power station, he/she is issued a temporary pass, giving access to the power station to supply the goods to the recipient or to the warehouse.
- During the delivery of goods with a vehicle, the procedure is as follows: The driver submits payment documentation, specifications, supply contracts and other documents, confirming that the goods enter CGME3 or CGOB under a contract. A document is filled in at the gate and then it is signed by Head of Health, safety and security department.
- A vehicle with unwashed tires or unsupported properly loads are not allowed in or outside the territory of the power station.
- During loading - unloading activities, the vehicle driver is under obligation to use PPE, which are mandatory for TPP territory - a helmet, protective footwear and suitable working clothes.
- The vehicle drivers, transporting volatile or easily scattered materials are under obligation to put covers on the vehicle bodywork.
- The vehicle drivers on TPP site have to move and park in such a way that the traffic of the other vehicles/fire engines, ambulance, office vehicles / or persons would not be obstructed in any way.
- On completion of loading - unloading activities, the vehicles shall immediately leave the power station.
- Bringing alcohol /beer including/, drugs or other psychotropic substances, in /out of the power station site is strictly forbidden as well as the access of persons under the influence of such substances.
- It is strictly forbidden to enter fire arms, gas weapons and cold steel weapons as well as explosive materials and air nail guns.

#### **4. Wrapping, packaging and batching**

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All units, details and parts of the equipment shall be supplied to ContourGlobal Operations Bulgaria, conserved with a package for storage, excluding any possibility of damage due to ambient conditions during the transportation and loading and unloading activities. The packaging and the large details shall be equipped with fixing devices for lifting and moving.

## 5. Technical requirements for the supply

It is necessary to supply new spare parts for turbine K-225-130-2M as per the attached requirements and specification of the **Contracting authority**.


The supply shall be performed by the manufacturer "Silovi mashini" ("Power machines").

All spare parts shall be supplied as per the attached specification and drawings which form an integral part of the present technical specification and are identical with those of the manufacturer.


The supply includes the following positions:

### ***SPECIFICATION***

Ser. No	Drawing No	Designation	SAP/Q4 stock number	Unit pcs, set Мерна единица	Q-ty, количество	Unit price Единична цена	Total price Обща цена
1	Drawing N 1434987	Diaphragm 2nd stage on HP cylinder	ST010314	nos.	1		
2	Drawing N 1434988	Diaphragm 3rd stage on HP cylinder	ST010315	nos.	1		
3	Drawing N 1434988-01	Diaphragm 4th stage on HP cylinder	ST010316	nos.	1		

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4	Drawing N 1436985	Sealing ring IP cylinder 20 st.	ST006927	nos.	1		
5	Drawing N 1436985-01	Sealing ring IP cylinder 21 st.	ST006936	nos.	1		
6	Drawing N 1436987 C5	Sealing ring IP cylinder for 20th and 21st stages	ST006944	nos.	24		
7	Drawing N 1439529C5	Vane controller of IP cylinder	ST010318	Set 1			
Parts to the vane controller:							
7.1	Pos. 2 Drawing N 1221262	Screw M20 special		nos.	4		
7.2	Pos.3 Drawing N 1221263	Stop pulley		nos.	4		
7.3	Pos.4 Drawing N 1221262	Pin (prefabrication)		nos.	4		
8	Drawing N 1157707	Gland ring 1157707	ST007184	nos.	10		
9	Drawing N 1439532	Diaphragm /14th stage/ 2nd stage of IP cylinder		Set	1		
10	Drawing N 1439535	Diaphragm /15th stage/ 3rd stage of IP cylinder		Set	1		
11	Drawing N 1250800	Balancing weight with diameter Φ 565 mm в.п 1250800 /IP rotor/	ST008719	nos.	6		
12	Drawing N 1250801	Balancing weight with diameter Φ 565 mm н.п 1250801 /IP rotor/	ST008632	nos.	6		
13	Drawing N 1250865	Balancing weight with diameter Φ 710 mm в.п 1250865 /IP rotor/	ST008718	nos.	4		
14	Drawing N 1250866	Balancing weight with diameter Φ 710 mm н.п 1250866 /IP rotor/	ST008716	nos.	6		
15	Drawing N 1442274	Balancing weight with diameter Φ 810 mm в.п 1442274 /IP rotor/	ST008715	nos.	8		
16	Drawing N 1442275	Balancing weight with diameter Φ 810 mm н.п 1442275 /IP rotor/	ST008724	nos.	8		
17	10.7821.269	Screw M10-6gx12.14H 12.7821.269 ГОСТ 1491-80 /for IP rotor/	ST009875	nos.	10		
18	Drawing N 1301974	Balancing weight with diameter Φ 920 /for the low sector/ 301974/ for LP rotor/	ST008717	nos.	4		
19	Drawing N 1371133-08	Balancing weight 1371133-08 /for LP rotor/	ST008727	nos.	6		
20	1428579	Balancing weight 428579 /for LP rotor/	ST008726	nos.	5		


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21	1250873	Balancing weight 1250873	ST008725	nos.	4		
22	1250874	Balancing weight 1250874	ST008722	nos.	2		
23	1250878	Balancing weight with diameter φ1210 1250878	ST008723	nos.	4		
24	12.7821.217	Screw M8-6gx12.14H 12.7821.217 /for LP rotor/	ST009874	nos.	9		
25		Twisted cord 5 x 5 /1435469; 1435470/		M	4		
26	1440585	Sealing ring 1440585 /for diaphragm 11 stage on IP cylinder/	ST008951	nos.	1		
27	1440753	Sealing ring 1440753 /for front sealing of HP cylinder/	ST008952	nos.	12		
28	1440754	Sealing ring 1440754	ST008953	nos.	4		
<b>29</b>	<b>Г1139658</b>	<b>Spring for control valve 3 and 4 stage</b>	<b>ST004754</b>	<b>nos.</b>	<b>8</b>		
30	1208493	Sleeve for banjo fitting DN 40 1208493	ST008774	nos.	5		
<b>31</b>	<b>Drawing N 1421004</b>	<b>Rod HP control valve 1421004</b>	<b>ST006952</b>	<b>nos.</b>	<b>10</b>		
<b>32</b>	<b>Drawing N 1230735</b>	<b>Compression spring 1230735</b>	<b>ST007288</b>	<b>nos.</b>	<b>5</b>		
33	Drawing N 1435469CB 1308154	Sphere Pos. 29	ST010077	nos.	4		
34	Drawing N 1435470CB	Spherical support, upper	ST009871	nos.	2		







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## 6. Supply terms

**All goods shall be supplied simultaneously as soon as possible for the Supplier and within the term negotiated in the Order. The deadline is 20.02.2016.**

## 7. Reception of goods in the storehouse

### 7.1 Deliveries via courier


The liable person confirms by stamping the hand-over protocol the reception of the materials, then send an e-mail to the maintenance work team, after which by the end of the next working day a technical person from the maintenance team is obliged to carry out a technical control of the supplied goods /material/ as well as to put his/her signature on the hand-over protocol. Just after that the goods are arranged at their proper places in the warehouse and the invoice and the hand-over protocol are presented to the Accountant department for processing.

### 7.2 Supply by the Contractor

During the supply of goods directly from the Contractor, the date and hours of delivery shall be announced in advance to the warehouse personnel as well as to the person who is responsible for the technical control. If the delivered goods have not been checked and the protocol for technical control has not been filled in, they are not accepted in the warehouse. If the goods meet the purchase requisition requirements, a hand-over protocol is filled in, the goods are accepted and registered in the warehouse, while the protocol and the protocol for the technical correspondence are submitted to the accounting department. In case of discrepancy with the parameters, specified in the purchase requisition, the goods are sent back to the supplier.

## 8. Obligations and requirements for the supply.

### 8.1. Obligations of the Supplier

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8.1.1 The Supplier shall supply new spare parts, specified by type and number in the attached specification, p.5 /Technical requirements for the supply/ and in the requirements of the Contracting authority.

8.1.2 The supply is carried out by means of the Contractor's transport to ContourGlobal Operations Bulgaria warehouse.

8.1.3 The Supplier shall prepare and handover the following Technical documentation:

1. Packing list
2. A declaration for conformity with the listed Contracting Authority requirements by the manufacturer
3. Quality certificate
4. Handover certificate

The documents shall be supplied in 3 /three/ copies

#### **4.2. Obligations of the Contracting authority.**

8.2.1 The **Contracting authority** shall ensure the presence of an authorized representative of the company during the reception of the goods, for the sake of on-receipt inspection.

According the requirements in the technical specification.

#### **9. Warranties**

9.1 The Supplier guarantees for the goods being supplied as the warranty period shall be no less than **24 months**.

9.2 Should it be ascertained that the defect has been caused during the transportation, the Supplier shall supply a spare part or unit, at its own expense and a new warranty period shall be introduced.

#### **10. Protocols and reference documents**

10.1 Document 20MA&10-GS003

10.2. Document 20MA&10-GS002