

**OIL & GAS DEVELOPMENT COMPANY LIMITED**  
**PROCUREMENT DEPARTMENT, ISLAMABAD**  
**FOREIGN SECTION A**

(To be completed, filled in, signed and stamped by the principal)

ANNEXURE 'A'

Material COOLING WATER CIRCULATION CENTRIFUGAL PUMP  
Tender Enquiry No PROC-FA/CB/P&P/PUMP-3388/2018  
Due Date 16-08-2018  
Evaluation Criteria FULL

**SCHEDULE OF REQUIREMENT**

Sr No	Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price C & F BY SEA	Total Price C & F BY SEA	Deviated From Tender Spec. If Any
1	Horizontal Split Case Centrifugal Pump, KSB Omega 125-230 A GC GF with Motor or Equivalent as per attached TOR.	Number	1					

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Note:

**1. Bid bond:**-Pursuant to tender clause # 2.2, 11.4, 13 & 35.3.2, bid(s) must be accompanied by an upfront bid bond in the form of pay order/ demand draft or bank guarantee issued by scheduled bank of Pakistan or a branch of foreign bank operating in Pakistan, for an amount of US\$ 8,00/- (US\$ Eight hundred only) or equivalent Pak Rupees, with technical bid and valid for 150 days from the date of opening of the bids. The bank guarantee must be issued in accordance with the format as per Annexure-C of the tender documents.

**2. Shipment from ACU member Countries:** In case of shipment from ACU member countries, the LC beneficiary should be of that particular country from where the consignment is being shipped.

**3. Terms and conditions:**-Bidders are advised to carefully read all the terms and conditions of the Tender Document available at OGDCL web site in the master tender document.

**4. Summary rejection criteria:** - The summary rejection criteria at clause 35 of the tender document may also be examined carefully. Any bid not meeting the criteria spelled in the clause # 35 shall be summarily rejected without any right of appeal. The detailed tender document is available on OGDCL website as "Master set of tender document-Foreign".

**5. Payment Terms:** Clause No: 3 of Section-III (Part-B) i.e. Conditions of Contract "Special" of Tender Document has been amended and following will be the payments methods.

- i. **Tender value less than or equal to US\$ 200,000:**-Payment to the Contractor/ bidder in foreign currency shall be made by establishing in favor of the Contractor an irrevocable Letter of Credit (hereinafter called the L/C). 70 % Payment (s) under the L/C will be made for the FOB/ CFR / CPT (as the case may be) price of material of each shipment upon submission of the shipping documents. Balance 30% Payment will be released after receipt, inspection and acceptance of material.
- ii. **Tender value more than US\$ 200,000:** Payment to the Contractor/ bidder in foreign currency shall be made by establishing in favor of the Contractor an irrevocable Letter of Credit (hereinafter called the L/C). 80 % Payment (s) under the L/C will be made for the FOB/ CFR / CPT (as the case may be) price of material of each shipment upon submission of the shipping documents. Balance 20% Payment will be released after receipt, inspection (in addition of pre-shipment inspection) and acceptance of material.

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Terms of reference (TOR)

1. Scope of supply:

- a. Supply of cooling water circulation centrifugal pump coupled with electric motor (Quantity: 01 No) for KPD-TAY plant.
- b. 03 Nos Centrifugal Pumps (Model: Omega 125-230 A GC GF, Make: KSB China) are installed at Cooling Water System of KPD-TAY Plant, Bidder shall quote the same or equivalent pump which can be operated in parallel to these pumps.
- c. The OEM/Supplier should provide 02 set of operation and maintenance / instruction / parts manuals (Hard copy and soft copy) along with all general arrangement drawings, mechanical / instrument / electrical drawings, quality plan, list of recommended lubricants & installation drawings etc.
- d. Two years recommended spare parts list (The spare parts list should be fully detailed with item wise price & quantity). However the selection of the spares is solely at OGDCL discretion, i.e. OGDCL may not purchase any spare part, reduce the quantities or delete some parts.

2. Code and Standards:

- API
- Relevant US / British standard specifications & code of practices.
- ISO
- IEEE
- ANSI
- ASME

Site Conditions:

The Pump will be utilized at KPD-TAY plant which is situated near Tando Jam, Hyderabad Sindh Pakistan. The general environment data is as below.

**Ambient Temperature Data**

Ambient Temperature, Minimum Average:	64 °F (18° C)
Ambient Temperature, Maximum Average:	93 °F (34° C)
Ambient Temperature, Maximum:	118 °F (48° C)
Ambient Temperature, Minimum:	36 °F (2.2° C)
Wet Bulb Temperature:	88 °F (31 °C)

**Rainfall Data**

Maximum Daily Rainfall (24 hours):	10 in (251 mm)
Highest Average Monthly Rainfall:	11.26 in (286 mm)

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**Wind Data**

Maximum Velocity: 100 mph,  
Design Velocity: 100 mph

Exposure factor C – flat open terrain, importance factor 1.15 – essential facility.

**Humidity**

Relative Humidity: 20% to 77%

**Elevation**

69 ft. (21 m)

**Earthquake Design Data**

Zone 2A of Uniform Building Code UBC 1997.

**4. Technical Detail / Specification.**

- i. Centrifugal pump, Capacity 452 M<sup>3</sup>/Hr, Head 50 Mtr, Skid Mounted. Quantity: 01 No.
- ii. The motor should be capable of developing sufficient horse power to drive the pump at full load at maximum site ambient conditions.
- iii. Material of construction must be fully compatible with operating conditions of the pump.
- iv. Mechanical seal with absolute sealing.
- v. Suction & discharge nozzle: 8" PN 10, FF & 5" PN 10, FF will be preferred, however different sizes to meet the pump design criteria will also be acceptable.

**vi. Cooling Water Analysis:**

Sr. No.	Description	Value
1	PH	6.5 – 8.5
2	Viscosity	0.90 cp @ 25°C
3	Vapour Pressure	0.96 psig
4	Specific Gravity	1.006
5	T.D.S	< 1000 ppm
6	T.S.S	< 50 ppm
7	Iron	< 0.31 ppm
8	Sulfates	< 500 ppm
9	Chlorides	< 300 ppm
10	Zinc	10 ppm
11	Total hardness	< 3 ppm
12	Phenolic Compounds	0.02 ppm
13	Manganese	1.00 ppm

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14	Silica	7 ppm
15	Conductivity umho/sec	1250
16	Turbidity (NTU)	25

**vii. Operating Conditions**

Sr. No.	Description	Value
1	Liquid	Cooling Water
2	Capacity	Min 452 M <sup>3</sup> /Hr
3	Differential pressure	72.5 Psi
4	Working	Continuous
5	Location	Out door
6	Suction Pressure	0 Psi
7	Discharge Pressure	72.5 Psi
8	Speed	2975 RPM (+/- 20 RPM)
9	Differential Head	50 Mtr
10	NPSH Available (ft)	Ample
11	Operating temp of fluid (Normal)	100-122° F

**viii. Specification of Motor:**

3 phase, 400 V, 50 HZ, 2975 (+/- 20) RPM, able to perform at 48°C ambient temp, Enclosure: IP-55, DII BT4 V1, insulation Class = F, Cooling type IC411.

**5. General Terms & Conditions**

- A. OEM Should be ISO 9000~2000 Certified.
- B. In case of equivalent pump, OEM must have minimum 08 years of manufacturing experience of pumps. Evidence should be provided along with technical bid.
- C. In case of equivalent pump, the previous proof of supply of similar / equivalent pumps in oil and gas companies / petrochemical plants is mandatory. Evidence should be provided along with technical bid. Otherwise bid will be technically rejected.
- D. Provide Technical Literature for quoted pump along with technical bid which must include data sheet of pump & motor, pump curves, x-sectional drawings, GA drawings etc.
- E. Delivery Period: 180-210 days.
- F. Provide all MTC and performance test report of the pumps with supply.

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6. Financial Bid Format:

S#	Scope	Price
1	Cooling Water Circulation Pump with Motor as per Specification mentioned in TOR.	
2	02 year operational spare parts cost (break up should be given).	
3	Freight charges.	
4	Total Cost (inclusive of all taxes) Sr. No 1 & 3	

Evaluation will be on the basis Sr. No. 1 & 3 and selection of Spare parts will be on OGDCL choice.

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