

OIL INDIA LIMITED

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ANNEXURE-I**Tender No. : KID3259L20/08****Tender Date : 04.12.2019**

Item No./ Mat. Code	Material Description	Quantity	UOM
10 0C000452	<p>Electric Motor Driven Centrifugal Pumpset, Mounted on a common base frame/skid, coupled with flexible coupling (Lovejoy type), complete with coupling guards, foundation bolts & nuts and necessary maintenance tools.</p> <p>A. Technical Specifications</p> <p>1.0 PUMP DETAILS:</p> <p>a. Type : Horizontal type, single suction Centrifugal Pump conforming to API Standard 610 / IS 15657 / ISO 13709(Pump Design) and IS 9137 Hydraulic Parameters of the Pump / Other applicable IS Codes. Bidders to confirm the same categorically in their bid.</p> <p>b. Service: - Continuous</p> <p>NOTE: #Continuous duty# means pump having service operation on full load for a period of 8 hours to 24 hours per day as per Hydraulic Institute Standard application.</p> <p>c. No. of Stage : 1 (One)</p> <p>d. Capacity : 7.6 M3/hour</p> <p>e. Delivery head : 3.85 meters.</p> <p>f. Speed : To be decided by the manufacturer based on required Capacity & Head of pump</p> <p>g. Liquid to be handled : Crude Oil</p> <p>h. Lubrication : Oil lubricated.</p> <p>i. Cooling gland : Internal gland cooling</p> <p>j. Impeller design : semi open</p> <p>k. Stuffing box shall be water sealed type of ample depth complete with gland packing. l. Dynamic balancing of the impellers assembly is required. Heavy duty double bearing should be provided at the non driving end (NDE) with oil/grease lubrication (Make of the bearing: SKF/FAG)</p> <p>m. ACCESSORIES: Base Frame (Skid), Coupling, Coupling Guard, Foundation Nuts & Bolts.</p> <p>2.0 CHARACTERISTICS OF LIQUID TO BE HANDLED (CRUDE OIL):</p> <p>a. pH : 5.5 to 8.5</p> <p>b. Dissolved salt content : 900 to 5000 PPM</p> <p>c. Iron content : 0.1 to 7.0 PPM</p> <p>d. Calcium content : 3 to 128 PPM</p> <p>e. Suspended solids : 1 to 400 PPM</p> <p>f. Salinity : 5000 PPM</p> <p>g. CO3 : NIL</p> <p>h. HCO3 : 305</p> <p>i. Pour Point (Deg C) : 27</p> <p>j. Sulphur content : Traces</p> <p>k. Oxygen content : 8 PPM (Maximum)</p>	2	NO

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	<p>l. Sand Content : Traces m. Water Content (% v / v) : 21 n. Specific gravity : 1 to 0.9 o. Pumping Temperature : 70 Deg C (Maximum) p. Viscosity of Fluid : 13 CP at 26 Deg C : 17 CP at 24 Deg C : 29 CP at 22 Deg C</p> <p>3.0 Material of construction:-</p> <p>The MOC of the pump should conform to:</p> <p>(i) API 610: Clause 2.11 with special attention on Appendix-G and Appendix-H. OR (ii) IS-15657: Clause 5.12 with special attention on Annex - G and Annex-H.</p> <p>The MOC of the pump should be clearly mentioned by the bidders in their offer. However, the MOC of the pump should commensurate the capacity parameters and the liquid to be handled by the pump. Alternative materials recommended for the service by the bidder, including material that can improve life and performance in service, may also be included in the offer and clearly mentioned in the data sheets. The bidder shall specify in writing the tests and inspection procedures that are necessary to ensure that materials are satisfactory for the service.</p> <p>4.0 BASE FRAME/SKID:</p> <p>All items (pump & motor/prime mover) to be coupled with flexible coupling (Lovejoy type) & to be mounted on an oil field type 2 runner skid. The size of the skid should be rigid for withstands vibration of the unit and large enough to provide for sufficient working space around the pump set. The skid floor should be covered with antiskid Checkered plate. The skid should be suitable for self loading purpose.</p> <p>5.0. OTHER DETAILS:</p> <p>Following details are to be provided along with the offer for our technical evaluation.</p> <p>i) Performance chart of the pump including all technical calculations such as hydraulic horsepower, volumetric efficiency, mechanical efficiency, rpm. ii) Material specification and constructional features of the pump. iii) NPSHR of the pump. iv) Complete technical details of pumps, engine, coupling, v) A schematic layout of the master base frame/skid showing the engine, pump and all other components of the pump set. vi) Installation diagram of pump set. vii) For foundation design during installation of the complete pump-set, the following information is to be supplied:- a) Dynamic load b) Static load c) Unbalanced load</p>		

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	<p>viii) Technical calculation for offering the engine with respect to the pump offered.</p> <p>ix). Technical catalogue of the offered pump.</p> <p>6.0 COUPLING AND MOUNTING ARRANGEMENT</p> <p>a. Pump & Motor to be coupled with flexible coupling (Lovejoy type)</p> <p>b. Suitable coupling guard should be provided over the coupling.</p> <p>c. The pump and motor should be mounted on a common MS fabricated base frame.</p> <p>d. Necessary foundation bolts should be provided along with the pump sets.</p> <p>7.0 DETAILS OF MOTOR/ PRIME MOVER:</p> <p>The electric motor shall be totally enclosed flameproof (explosion proof) Ex-d type, squirrel cage induction motor, horizontal foot mounted with bi-directional cooling fan at NDE, suitable for operation on 415 V, 3 phase, 50 Hz AC supply at 45 Degree C Ambient temperature.</p> <p>a. Type of motor: Squirrel cage Induction motor.</p> <p>b. Make: Kirloskar / Crompton / Siemens / Bharat Bijlee / ABB / NGEF / Marathon Electric</p> <p>c. The motor shall confirm to IS 325 IS: 2148-2004, IS: 5572-1994, IS: 9570-1980, IS: 325-1996, IS: 4722 and IS/IEC: 60034 for performance and service.</p> <p>d. Rating: KW/HP- To be calculated by supplier/OEM of pump set as per pump requirement (Both pump capacity and motor capacity calculation sheets to be attached with the bid). The motor rating should be limited to Maximum 7.5 KW/ 10 HP</p> <p>e. Voltage: 415 \pm 10%.</p> <p>f. Frequency: 50 Hz AC.</p> <p>g. Phase: 3 Phase AC</p> <p>h. Painting: Epoxy DA grey</p> <p>i. RPM : To be decided by supplier/OEM of pump set, matching with pump design speed</p> <p>j. Duty: continuous duty</p> <p>k. Class of Insulation : Class 'F' but temperature rise limited to that of class 'B'.</p> <p>l. Type of enclosure: Totally enclosed fan cooled (TEFC) with IP - 55 protection</p> <p>m. Maximum permissible temperature rise of the motor: As per IS 325/1961</p> <p>n. Mounting : Horizontal, Foot mounted</p> <p>o. Frame size: As per load requirement</p> <p>p. Drive : Direct coupled with flexible coupling</p> <p>q. Method of Starting: DOL</p> <p>r. Shaft extension: To match the driven pump</p> <p>s. Markings: Rust proof SS Name plate details with name of Manufacturer, Manufacturer's Serial No., Year of manufacture, P.O. No., frame size, rated voltage, rated output, current, frequency, type of duty, class of insulation, no. of phases, speed in rpm at rated output, degree of protection, winding connections, ambient temp, bearing sizes, lubricant, lubrication material and year of manufacture.</p> <p>8.0 PARTICULARS OF TERMINAL BOX:</p>		

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	<p>a. Connection: Six terminals brought out to terminal box (for connection in star/delta configuration, suitably rated brass links shall be supplied for making star connection) Motor should have single shaft extension with standard flat key. Suitable Cable gland is to be provided along with the terminal box.</p> <p>b. Flameproof Motor terminal box with six nos. of terminal studs of adequate current carrying capacity, suitable for use in oil and gas mines, fitted with 01 (One) no. double compression FLP cable glands. The glands shall be suitable for entry of 4 cores, 10 sq.mm, PVC insulated, PVC sheathed, multi-stranded aluminium cable armoured with GI strip/wire.</p> <p>c. Earthing: 1 (one) no. inside terminal box and 2 (two) nos. on the body of the Motor</p> <p>d. Lifting eye : 1 No.</p> <p>e. The flameproof electrical motor shall be conforming to requirements of relevant Indian or International Standards and duly tested and certified by Government Accredited Indian or International Test Houses or Laboratories. Bidder shall submit copy of valid test certificate(s) approving the appliances for use in hazardous area zone-1, gas group IIA & IIB along with the bid. Bids not accompanying required test certificates for the FLP motor will not be considered for technical evaluation.</p> <p>9.0 CLIMATIC CONDITIONS:</p> <p>The Pump & Motor/Prime mover shall be suitable for operation in the following climatic conditions:</p> <p>a. Altitude : 150 meter above mean sea level</p> <p>b. Temperature : 45 Deg. C Max</p> <p>c. Avg. rainfall : 350 cms.</p> <p>d. Max. Relative humidity : At 21 Deg C : 10 % At 35 Deg C : 95 % At 40 Deg C : 70 %</p> <p>10.0 SPARES & MAINTENANCE TOOLS:</p> <p>10.1 COMMISSIONING SPARES:</p> <p>The Supplier has to supply all the spare parts required for initial commissioning of each unit.</p> <p>10.2 REGULAR/ RECOMMENDED OPERATIONAL CRITICAL SPARES:</p> <p>The bidder shall furnish a list of spares & components that will be required for regular operation and maintenance, overhauling etc. throughout the life of the equipment complete with price (in price bid only) of each item. Annual consumption of each spare should be furnished. The bidder should also provide detailed spare list of all the items including bought out items in the operation and maintenance manuals. The list should include a spare parts list along with OEM part numbers, make & model of the equipment and contact postal address of OEM for all items of the whole unit. THE PRICE QUOTED FOR REGULAR/ RECOMMENDED SPARES WILL NOT BE TAKEN IN TO</p>		

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	<p>ACCOUNT FOR BID EVALUTION AND THE PRICES MUST BE MENTIONED ONLY IN THE PRICE BID.</p> <p>10.3 1(One) Set of tools for maintenance of pumps should be included in the offer for each pump. Details of such tools should be mentioned separately in the offer. Price of the tools shall not be mentioned separately in the offer but shall be considered included as a unit price for the pump set as a whole for bid evaluation. In case of the order the tools shall be supplied in a suitable and standard tool box along with detail description of tools and quantity supplied and this should match with the details mentioned in the initial offer.</p> <p>11.0 The bidder shall confirm to submit the following Data Sheet along with the bid:</p> <p>A. DATA SHEET (PUMP)</p> <p>MAKE MODEL PUMP TYPE SERVICE LIQUID HANDLED OFFERED RATED SPEED OFFERED RATED PRESSURE DISCHARGE VOLUME@OFFERED SPEED (Vol. Effi. = 93%) APPROX HP REQUIREMENT AS PER NIT PARAMETERS NPSH REQUIRED PUMPING TEMPERATURE COUPLING TYPE MATERIAL OF CONSTRUCTION PUMP CASING BEARING HOUSING IMPELLER SHAFT</p> <p>B. DATA SHEET (/PRIME MOVER)</p> <p>MAKE MAKE MODEL TYPE RATED SPEED REFERENCE OF STANDARDS MOTOR RATING (KW) NUMBER OF PHASES TYPE OF ENCLOSURE POWER INPUT TO PUMP AT DUTY POINT (KW) METHOD OF STARTING BEARING TYPE AT POWER END BEARING TYPE AT NON-DRIVE END METHOD OF COOLING DUTY TYPE OF CONSTRUCTION</p>		

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	<p>CLASS OF INSULATION UNIDIRECTIONAL OR BIDIRECTIONAL ROTATION SYSTEM OF EARTHING</p> <p>12.0 The bidder shall provide details of foundation bolts and coupling cover along with the bid.</p> <p>PLEASE SUBMIT DULY FILLED ANNEXURE - A & ANNEXURE - B ALONGWITH SUPPORTING DOCUMENTS.</p>		

Special Notes : SPECIAL TERMS AND CONDITIONS: -

1. The items shall be brand new, unused & of prime quality. Bidder shall warrant (in the event of an order) that the product supplied will be free from all defects & fault in material, workmanship & manufacture and shall be in full conformity with ordered specifications. This clause shall be valid for 12 months from date of receipt at site or 18 months from the date of shipment/dispatch whichever is early. The defective materials, if any, rejected by us shall be replaced by the supplier at their own expense on FOR Destination basis. Bidders must confirm the same in writing while quoting.

2. The offer shall be accompanied with the following:

- i. Detailed cross sectional/dimensional drawing of pump and motor
- ii. Characteristics / Performance curves of the pump.
- iii. Pump and motor capacity calculation
- iv. Test certificate of pump and motor for routine tests done at manufacturer's works.

3. The Bidder shall furnish every detail of pump and motor as specified in the enquiry.

4. The Bidder shall categorically confirm that the pump and motor shall be supplied in unitized condition.

5. The bidder shall specifically mention about the dynamic balancing of the impeller and provide necessary details thereof.

6. The bidder shall confirm that foundation drawing, operation and maintenance manual will be forwarded along with each unit of the materials in the event of placement of order.

7. The bidder shall confirm that test and guarantee certificate of motor and pump will be forwarded along with the materials in the event of placement of order.

8. The bidder shall confirm that Material Test Certificates of components like Casing, Impellers, Pump Shaft and diffusers etc. will be forwarded along with the materials in the event of placement of order.

9. The bidders shall note that deviation in MOC as specified above will not be accepted.

10. Delivery: Bidders are to quote their best delivery period. However, the preferable delivery required against this tender is Six (6) months for all the items from the date of issue of Purchase Order. No preference/ benefit / weightage shall be given for quoting shorter delivery period.

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11. The bidder must submit a written undertaking along with the technical bid that they would be able to supply all the requisite spares and consumables (including bought out items) for a period of 05(five) years from the certified date of completion /successful field commissioning of the unit.

12. The Bidder to submit Technical Compliance Check List along with technical bid as per Annexure-A.

13. PACKING AND PROTECTION:

Packing shall be sufficiently robust to withstand rough handling during shipment and in country journey. All items shall have their respective identification letters or numbers painted on them and they shall be suitably packed to provide ease of handling and storage and maximum protection during transport and storage period. Crates and boxes shall have a list of items contained therein secured to the exterior body by a piece of an enveloping piece of tin sheet nailed to the wood. A duplicate list shall also be included inside the crates/ boxes mentioning the contents. Sling points shall be clearly indicated on the crates.

14. Inspection & Testing:

- i. Bidder shall quote third party inspection charge separately.
- ii. The unit will be inspected by Third Party Inspection Agency approved by OIL viz. M/s IRCLASS Systems and Solution Private Limited , M/s Lloyds, M/s Rites, M/s Bureau Veritas, M/s DNV only with the following scope of work:
 - a) To review and ensure use of raw materials as per purchase order.
 - b) To review the material test certificates.
 - c) To witness hydro test of the pump.
 - d) To witness final dimensional inspection and ensure proper workmanship.
 - e) The above scope of inspection is for general guideline only. If the third party inspection agency desires to carry out any additional inspection, then the same should be included under intimation to OIL.

15. Materials must be inspected and certified by any one of the OIL authorized third party inspection agencies viz. M/s. BV / IRCLASS Systems and Solution Private Limited / Lloyds / RITES / DNV / Tuboscope Vetco prior to despatch. Bidders must quote the inspection charges separately in % (percentage) in the offer for evaluation of offer, failing which it shall be construed that the quoted rates are inclusive of 3rd party inspection charges.

When a bidder mentions third party inspection charges as extra without specifying the amount, the offer will be loaded with maximum value towards third party inspection charges quoted against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading and in the event of order on that bidder, third party inspection charges mentioned by OIL on the Purchase Order will be binding on the bidder. Please also quote minimum TPI charges in case of part order or the same will be calculated on pro-rata basis.

16. Please fill up Technical evaluation sheet (Annexure A & B) and submit along with your offer.

17. Validity of offer: 75 days from the date of tender opening. Offer with validity less than 75 days will be rejected.

18. Bidder are advised to fill up the Undertaking of authenticity of information/documents submitted (Annexure - K) along with their technical bid.

19. The items covered by this Tender shall be used by Oil India limited in the PEL / ML areas which are issued / renewed after 01/04/99 and hence bidder shall be eligible for concessional rate of GST against Essentiality Certificate for Invoice valuing INR 1 lakh & above.

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In the event of order, the supplier shall arrange to provide all necessary documents atleast one month before schedule date of despatch to apply for essentiality certificate from DGH. Supplier shall affect despatch only on receipt of this certificate from OIL, failing which all related liabilities shall be to supplier's account.

20. Performance Guarantee is applicable against this tender. 10% of the ordered value shall be given as performance guarantee in the form of bank guarantee and shall be valid for 90 days beyond applicable warranty / guarantee / defect liability period (if any). Bidders should undertake in their bid to submit Performance Security as stated above.

A. Bidders should note that the bank guarantee issued by the bank must be routed through SFMS platform as per following details:

- (i) MT 760 / MT 760 COV for issuance of bank guarantee.
- (ii) MT 767 / MT 767 COV for amendment of bank guarantee.

The above message / intimation shall be sent through SFMS by the BG issuing bank branch to Axis Bank, Corporate Banking Branch, IFSC Code - UTIB0001164. Branch Address - AXIS Bank Ltd, Corporate Banking Branch, 3rd Floor, AC Market, 1, Shakespeare Sarani, Kolkata 700071."

B. The Bidder shall submit to OIL the copy of SFMS message as sent by the issuing bank branch along with the original bank guarantee.

21. PAYMENT TERMS:

21.1 Payment will generally be made against completed supply. Where phased delivery is indicated in the order, payment will be made against each lot as per phasing.

21.2 In certain cases, payment to the extent of 90% maximum of the value of the supply will be made against proof of dispatch presented through Bank or to OIL directly. Balance 10% of the value will be released not later than 30 days of receipt of goods at OIL's site. Adjustments, if any, towards liquidated damage shall be made from the balance 10% payment. OIL may consider releasing 100% payment against dispatch documents for suppliers having good track record with OIL and where 10% Performance Security is submitted in time and no installation/commissioning is involved.

22. Bidders are advised to submit their prices & other relevant details in attached price bid format (Annexure - IIA).

23. General Terms and Conditions (Annexure - II) of this tender is not enclosed separately. Please refer to General Terms and Condition for National Tender under tab "For Vendors" - "Limited Tender" in OIL website <http://www.oil-india.com>. Tender will be governed by the same.

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Tender Date : 04.12.2019
Bid Closing On : 14.01.2020 at 14:00 hrs.(IST)
Bid Opening On : 14.01.2020 at 14:00 hrs.(IST)

Tender issued to following parties only:

S/no	V_Code	Vendor Name	City/Country
1	200072	BHARAT PUMPS AND COMPRESSORS LTD.	ALLAHABAD
2	200211	STEEL & INDUSTRIAL STORES	ASSAM
3	200392	RAVI BROTHERS	GUWAHATI
4	200576	BAREJA PUMPS PVT. LTD.	KOLKATA
5	200655	CT BOILER PVT. LTD.	KOLKATA
6	200832	INDUSTRIAL EQUIPMENTS	GUWAHATI
7	200932	WILO MATHER AND PLATT PUMPS PVT LTD	KOLKATA
8	201059	ROTO PUMPS LTD.	KOLKATA
9	201602	ORIENTAL ENGG.WORKS PVT.LTD	YAMUNA NAGAR
10	202649	KSB PUMPS LIMITED	KOLKATA
11	202674	GOMA ENGINEERING PVT. LTD.	THANE
12	202745	WATERTECH ENGINEERS PVT. LTD.	KOLKATA
13	203062	GLOCON	TINSUKIA
14	203577	ARADHANA AGENCY	GUWAHATI
15	204084	WPIL LTD	24 PARGANAS
16	204295	WELTEK PUMPS (P) LTD	KOLKATA
17	205267	SUPERTECH ENGINEERING &TRADE PVT.LT	WEST BENGAL
18	205475	NARBADA INDUSTRIES	GUWAHATI
19	205891	LARSEN & TOUBRO LIMITED	Kolkata
20	206735	SPECTRON ENGINEERS PVT. LTD.	MUMBAI
21	209710	A.V.ENGINEERING	SECUNDERABAD
22	209711	MS HYDRAULICS	PUNE
23	209712	M.GOVIND & SONS	GUNTUR
24	209713	POWERJAC SYSTEMS PVT.LTD.	BELGAUM
25	209714	UNIVERSAL HYDRAULICS & PNEUMATICS	CHENNAI
26	209715	ORIONE HYDRAULICS PVT. LTD.	BELGAUM
27	209716	HINDUSTAN HYDRAULICS &PNEUMATICS	CHENNAI
28	211779	JAMAN BHAI PATEL & CO.	JAIPUR
29	212471	KIRLOSKAR BROTHERS LIMITED	AHMEDABAD
30	213478	JANKI AQUATECH	JAIPUR
31	214443	WILO MATHER AND PLATT PUMPS PVT. LT	Guwahati
32	214964	CREATIVE ENGINEERS	Ahmedabad
33	214970	MACKWELL PUMPS & CONTROLS	Ahmedabad
34	215073	Bliss Enterprise	Mumbai
35	215198	NATWAR LALL & COMPANY	KOLKATA
36	407125	V.K. PUMPS INDUSTRIES PVT. LTD.	PunePune
37	409622	ASSOCIATED ENGINEERS	NEW DELHI