



बामर लॉरी एण्ड कं. लिमिटेड
Balmer Lawrie & Co. Ltd.

REFINERY & OILFIELD SERVICES
21, Netaji Subhas Road
Kolkata 700 001

TENDER DOCUMENT

FOR

SUPPLY OF SCREW PUMPS

Tender No.: ROFS/CAPEX/20-21/ENQ/05

Dated: 28.08.2020

Tender Due date & Time : 18.09.2020, 16:00 Hrs

PART-I (Un-Priced)

INDEX

SL. NO.	SUBJECTS
1.0	Check-List
2.0	Notice Inviting Tender
3.0	Instructions to Bidders regarding Bid Submission
4.0	Technical Specifications
5.0	Data Sheet for Screw Pump
6.0	Technical Particulars (To be filled up by Bidders)
7.0	Proforma Bank Guarantee for Performance –Attachment - I
8.0	Vendor's Information – Attachment – II

**CHECK LIST FOR SUBMISSION OF TENDER
(TO BE SUBMITTED WITH UN-PRICED PART)**

Tenderers are requested to fill up this Check List and attach supporting documentary evidence.

Sl No.	Submission of Document	Bidder's Confirmation/Submission (Yes / No)
1	90 days validity of the offer confirmation	
2	Copy of Work Order and Completion Certificates for similar supplies as per Pre-qualification Criteria	
3	Authorization Letter from OEM for dealers	
4	PAN	
5	GSTIN Registration	
6	Valid MSE Registration certificate as per NIT	
7	In case of SC/ST or woman entrepreneur, please provide details as per tender	
8	Price Schedule in Un-priced Bid duly blanked out and signed	
9	Tender Document (along with addendum if any) duly signed and stamped on all pages	
10	Price quoted strictly as per Tender price schedule	
11	Payment Terms in compliance to tender requirement	
12	Delivery Period in compliance to tender requirement	
13	LD clause in compliance to tender requirement	
14	Warranties and Guarantee in compliance to tender requirement	
15	All others Technical & Commercial Terms & Conditions shall remain unaltered as per Tender document	



**Balmer Lawrie & Co. Ltd.
Refinery & Oilfield Services
NOTICE INVITING TENDER**

Tender No. : ROFS/CAPEX/20-21/ENQ/05
Date : 28/08/2020
Due Date & Time : 18/09/2020, 16:00 Hrs
Date & Time of Opening : 18/09/2020, 16:30 Hrs

BALMER LAWRIE & CO. LTD. (BL) invites online offers from experience & resourceful Suppliers/vendors (pump manufacturers or their authorized dealers only) for design, engineering, manufacture, inspection & testing at manufacturer's works and supply of **two (2) Nos. Screw Pumps with suitable Flameproof Motors** on a common base frame along with all accessories and all are to be used in sludge processing operation from oil tanks.

1.0 SCOPE OF WORK

The scope of supply covers design, manufactures, testing and supply of **two (2) nos. Screw Pumps** complete with all accessories and approved make FLP Motor as defined in Technical Specification, Data Sheet elsewhere in this tender. All the pump-motor sets should be delivered in a properly packed condition suitable for transportation by road.

2.0 PRE-QUALIFICATION (PQ) CRITERIA

The prospective tenderers shall fulfil the pre-qualification criteria and submit following documents in support of the same:

- a) Order copy or completion certificate/commissioning certificate for supply of 2 nos of Screw Pumps during the last 7 years.
- b) GST Registration Certificate
- c) PAN
- d) In case of authorized dealer, the tenderer shall submit valid authorization letter/certificate from the manufacturer

3.0 DELIVERY PERIOD

Time is the essence of the contract. Screw Pump-Motor Sets shall be delivered within **16 (Sixteen) weeks (Ex-Works basis)** from the date of Letter of Intent (LOI)/ Purchase Order (PO) whichever is earlier.

4.0 TENDER DOCUMENTS

Tender Documents comprise two parts viz. Part-I (Un-priced) and Part-II (Priced). The Un-priced Part consists of Notice Inviting Tender, Instruction to Bidders, Technical Specifications, Data Sheets and other formats. The Priced Part consists of Price Schedule.

5.0 VALIDITY OF OFFER

Tenderers shall keep their offer valid for a period of **90 (ninety) days** from the due date of this tender. Validity may be extended, if so advised by BL.

6.0 SECURITY DEPOSIT

The tenderer, with whom the contract is decided to be entered into and intimation is so given will have to make a Security Deposit @ 2.5% of the basic Order value in the form of Demand Draft drawn in favour of Balmer Lawrie & Co. Ltd. payable at Kolkata or Bank Guarantee valid till completion of supply executed by any Scheduled bank within 15 days from the date of intimation of acceptance of their tender, failing which Balmer Lawrie & Co. Ltd. reserves the right to cancel the Order. Security Deposit shall be released after completion of the supply.

7.0 BASIS OF EVALAUTION

Bidders will be selected through evaluation of their Unpriced Bids based on fulfillment of pre-qualification criteria i.e. submission of all required PQ documents and other required documents, EMD/MSME Certificate as per the instructions contained in the tender document. Price Bids will be opened only for the bidders whose Unpriced Bids (Part-I) are found to be acceptable. The tenderer shall fill the rates & amounts both in words and figures. The amount against each item is also to be filled in. In case of any discrepancy, the amount quoted in words shall be taken as correct. L1 Bidder will be determined based on total amount comprising basic amounts + Packing & Forwarding. Freight charges will be reimbursed at actual since delivery addresses which may be at multiple-locations will be intimated after readiness of materials.

8.0 SPLIT ORDER

This is NO-SPLIT Type Tender.

9.0 FORCE MAJEURE

Any delay in or failure of the performance of either part hereto shall not constitute default hereunder or give rise to any claims for damage, if any, to the extent such delays failure of performance is caused by occurrences such as Acts of God or an enemy, expropriation or confiscation of facilities by Government authorities, acts of war, rebellion, sabotage or fires, floods, explosions, riots, or strikes. The Vendor shall keep records of the circumstances referred to above and bring these to the notice of the Engineer-In-Charge in writing immediately on such occurrences. The amount of time, if any, lost on any of these counts shall not be counted for the delivery period. On decision of BL/Owner arrived at after consultation with the Vendor, shall be final and binding. Such a determined period of time be extended by the Owner to enable the Vendor to deliver the items within such extended period of time.

If Vendor is prevented or delayed from the performing any of its obligations under this agreement by Force Majeure, then Vendor shall notify Owner the circumstances constituting the Force Majeure and the obligations performance of which is thereby delayed or prevented, within seven days of the occurrence of the event.

10.0 ARBITRATION

Any dispute or difference arising under this Contract shall be referred under jurisdiction of Kolkata to a sole arbitrator to be appointed by the Chairman & Managing Director, Balmer Lawrie & Co. Ltd. and the provisions of Arbitration Act, 1996 including any statutory

modifications or enactment thereof shall apply to the Arbitration proceedings. The fees of the arbitrator, if any, shall be shared equally by both the parties. The award shall be a speaking award stating reason therefor and is final & binding on the parties. The proceeding shall be conducted in English language and courts at Kolkata will have exclusive jurisdiction to settle any dispute arising out of this contract.

11.0 JURISDICTION

Notwithstanding anything contained in any other law, the courts in the city of Kolkata along shall have jurisdiction in respect of all or anything arising under this agreement and any award or awards made by the sole arbitrator

12.0 TERMINATION OF CONTRACT

In case of violation/breach of any agreed terms and conditions of contract and persistently failure/negligence to observe and perform all or any of the acts, deeds, matters or things to be observed and performed by the Supplier requiring the Owner to observe or perform the same, BL may cancel/terminate this contract . In such case, the EMD and/or Security Deposit of the Supplier will be forfeited.

13.0 RIGHT OF ACCEPTANCE/REJECTION

Mere issue of tender document, participation in e-procurement portal and submission of bids does not necessarily qualify for consideration of bids. Conditional offer or offer with deviations will not be accepted. M/s Balmer Lawrie & Co. Ltd. reserve the right to accept or reject any tender either in part or in full without assigning any reason whatsoever.

14.0 NON-CONFORMANCE

Tenders not conforming to the above mentioned requirements are liable to be rejected.

15.0 TENDER CONDITIONS FOR BENEFITS / PREFERENCE FOR MICRO & SMALL ENTERPRISES (MSES)

- 15.1 As Per Public procurement Policy for Micro & Small Enterprises (MSEs) Order, 2012 issued vide Gazette Notification dated 23.03.2012 by Ministry of Micro, Small and Medium Enterprises of Govt. of India, MSEs must be registered with any of the following in order to avail the benefits/preference available vide Public Procurement Policy MSEs Order,2012
- a. District Industries Centers (DIC)
 - b. Khadi and Village Industries Commission (KVIC)
 - c. Khadi and Village industries Board and Coir Board
 - e. National Small Industries Corporation (NSIC)
 - f. Directorate of Handicraft and Handloom
 - g. Any other body specified by Ministry of MSME
- 15.2 MSEs participating in the tender must submit the certificate of registration with any one of the above agencies indicating the details of the particular tendered item along with their bid.
- 15.3 The registration certificate issued from any one of the above agencies must be valid as on close date of the tender. The successful bidder should ensure that the same is valid till the

end of the contract period.

- 15.4. The MSEs who have applied for registration or renewal of registration with any of the above agencies/bodies, but have not obtained the valid certificate as on close date of the tender, are not eligible for exemption/preference.
- 15.5. Price Preference - Subject to meeting terms and conditions stated in the tender document including but not limiting to prequalification criteria, 25% of the total quantity of the tender is earmarked for MSEs registered with above mentioned agencies/bodies for the tendered item. Where the tendered quantity can be split, MSEs quoting a price within a price band of L1+15% shall be allowed to supply 25% of total tendered quantity provided they match L1 price. In case the tendered quantity cannot be Split, MSE shall be allowed to supply total tendered quantity provided their quoted price is within a price band of L1+15% and they match the L1 price. In case of more than one such MSEs are in the price band of L1+15% and matches the L1 price, the supply may be shared proportionately.

For Further clarity in this regard a table is furnished below:

Type of Tender	Price Quoted by MSE	How to Finalize the Tender
Can be split	L1	Full Order on MSE
Can be split	Not L1 but within L1+15%	25% order on MSE subject to matching L1 price
Cannot be split	L1	Full Order on MSE
Cannot be split	Not L1 but within L1+15%	Full Order on MSE subject to matching

- 15.6 Out of the 25% target of annual procurement from micro and small enterprises, 4% has been earmarked for procurement from MSEs owned by SC or ST entrepreneurs and 3% from within 25% has been earmarked from supply from the MSEs owned by Woman entrepreneurs. Provided that, in event of failure of such MSEs to participate in tender process or meet tender requirement and L-1 price, 4%/ 3% sub-target for procurement earmarked for MSEs owned by SC or ST entrepreneurs and woman entrepreneurs respectively shall be met from other MSEs.
- 15.7 To qualify for entitlement as SC/ST owned MSE, the SC/ST certificate issued by District Authority must be submitted by the bidder in addition to certificate of registration with any one of the agencies mentioned in paragraph (I) above. The bidder shall be responsible to furnish necessary documentary evidence for enabling BL to ascertain that the MSE is owned by SC/ST. MSE owned by SC/ST is defined as:
- In case of proprietary MSE, proprietor (s) shall be SC/ST
 - In case of partnership MSE, The SC/ST partners shall be holding at least 51% shares in the enterprise.
 - In case of Private Limited Companies, at least 51% share shall be held by SC/ST promoters.
- 15.8 To avail the price preference in this tender, the bidder has to submit MSE certificate issued for goods/services involved in tender.

16.0 TENDER CONDITIONS FOR BENEFITS / PREFERENCE UNDER 'MAKE IN INDIA'**Purchase preference shall be given to 'Make in India' as per followings for subject tender**

1. This is a non – divisible tender and 'Class I local supplier' shall get purchase preference over 'Class – II local supplier' as well as 'Non-local supplier', as per following procedure –
 - a. Definitions
 - i. **'Class I local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement, has local content equal or more than 50% as defined below (iv)
 - ii. **'Class II local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement has local content 20% but less than 50% as defined below (iv)
 - iii. **'Non-local supplier'** means a supplier or service provider, whose goods, services or works offered for procurement has local content less than or equal to 20% as defined in 'iv'
 - iv. **'Local content'** means the amount of value added in India which shall, be the total value of item procured minus the value of imported content (including all custom duties) in the item as a proportion of the total value in percent
2. The margin of purchase preference shall be 20%
3. Purchase preference shall be as per following procedure –
 - a. Among all qualified bids, the lowest bid will be termed L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1
 - b. If L1 is not 'Class I local supplier', the lowest bidder among the 'Class I local supplier' will be invited to match the L1 price subject to Class I local supplier's price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class I local supplier' subject to matching the L1 price
 - c. In case such lowest eligible 'Class I local supplier' fails to match the L1 price, the 'Class I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder
4. Bidder to indicate followings for evaluation purpose –

Description	Bidder to Mention
Category of Bidder	
Country of Origin of Product / Location of Manufacturing facility	
% of Local content (Only % shall be mentioned, however breakup shall be provided after opening of price bid for verification), if % of local content not proven, BL will have right to reject the bid, for further details please refer order no P-45021/2/2017-PP(BE-II) issued by the Government of India	

17.0 CONFLICT OF INTEREST

The bids of any tenderer may be rejected if a conflict of interest between the bidder and the company is detected at any stage.

18.0 PAYMENT TERMS

- i) **90% of the basic order** value along with full taxes shall be paid after receipt of pumps in good conditions and submission of bill/invoice along with relevant test certificates and guarantee certificates.
- ii) **10% of the basic order** value shall be paid against submission of PBG (Performance Bank Guarantee) of equivalent amount valid with validity of 18 months from the date of supply or 12 months from the date of commissioning whichever is earlier. PBG shall be submitted after completion of delivery.

19.0 WARRANTIES & GUARANTEES

Vendor shall guarantee BL and their authorized representative against any and all defects in manufacturing, workmanship, materials and performance for a period of twelve (12) months from the date of commissioning or eighteen (18) months from the date of supply whichever is earlier. Should any defect develop during the guarantee period, it shall be remedied promptly free of charge by the Vendor and all expenses for transportation of goods necessitated for such repairs or replacement shall be borne by the vendor.

20.0 INSPECTION & TESTING

All materials and components will be subject to inspection by BL/authorised representatives of BL as per the relevant codes, standards and specification. All arrangement & costs, if any, for conduction tests during inspection at vendor's works will be deemed to be included in the quoted prices.

Before commencement of despatch, the goods shall be stamped clear for transportation to ROFS site by the Inspector and a note of acceptance will be released by the Inspector to the Vendor indicating acceptance of the goods offered by the Vendor for inspection. Only after the release of such note, it will be deemed that the goods (or concerned part thereof) are acceptable to BL/authorised representative of BL.

It shall be the option of BL/ authorised representative to allow the Vendor to replace the rejected goods or to cancel the Order for the goods rejected. All costs for carrying out inspection including that required for making arrangements for the same shall be borne by the Supplier.

21.0 LIQUIDATED DAMAGES

A reduction @**0.5% of the basic order** value per week or part thereof subject to a maximum of **5% of the basic order** value will be applicable for delay in delivery period.

22.0 TAXES & DUTIES

GST shall be mentioned separately as per price schedule. Any taxes and duties other than GST shall be included in the basic rate. **Prices should be firm** till completion of the job and no escalation for whatsoever reason shall be granted. Our GST Registration No. 19AABC0984E1ZS for the state of West Bengal.

23.0 TYPE OF BID

Bidder should submit offer on Two-part (Un-priced & Priced)basis through on-line in Balmer Lawrie's e-procurement portal. Hardcopy of Unpriced-bid shall be submitted to Balmer Lawrie's office as mentioned later. A blank copy of price schedule should be submitted along with the un-priced bid.

For further clarification on tender document, please contact Sri Samir Biswas, Manager (Commercial), Phone no +9133 2222 5706, Fax no. : + 91-33 2222 5333, E-Mail : biswas.s@balmerlawrie.com.

Yours faithfully,
for, BALMER LAWRIE & CO. LTD.

(A Bandyopadhyay)
Head (ROFS)



Balmer Lawrie & Co. Ltd.
Refinery & Oilfield Services

INSTRUCTIONS TO BIDDER REGARDING BID SUBMISSION

1.0 PROCEDURE FOR BID SUBMISSION

The Tender Document comprises of two Bids viz Unpriced Part – I and Priced Part – II. The submission of offer can only be made through e-bidding as per following guidelines :

1.1 BID SUBMISSION

The bidders shall submit their response through bid submission to the tender on e-Procurement platform at <https://balmerlawrie.eproc.in> by following the procedures given below. The bidder would be required to register on the e-procurement market place <https://balmerlawrie.eproc.in> and submit their bids on line. The bidders shall submit their offers comprising the Tender Document (Part-I), duly filled up (wherever required), stamped and signed along with all pre-qualification documents, EMD. The bidders shall download the tender document, upload the same along with scanned copies of all the relevant certificates, documents etc., duly filled in, stamped and signed, in support of their eligibility criteria/NIT in the e-Procurement web site. However, bulky documents which could not be uploaded may be sent along with Unpriced Bid (Part-I) of the Tender Document, duly stamped and signed to the Tender Inviting Authority before date of tender opening along with the bank draft towards EMD amount (unless otherwise MSME). A copy of Priced Bid **without rate and amount** but with percentage of taxes and duties should be submitted along with Unpriced Bid. **Priced Bid, as displayed in the site, should be downloaded, filled up the rates, amount and uploaded to Balmer Lawrie e-procurement site under 'Uploading Priced Bid' link in 'Bid common Form'. Total Contract Price with GST shall be entered as 'Project Contract Total' while uploading price bid.**

1.1.1 Registration with e Procurement platform

For registration and online bid submission tenderer may contact the following officials at the HELP DESK of M/s C1 India on browsing to the website <https://balmerlawrie.eproc.in> during business hours (10:00 a.m. to 06:30 p.m.) from Monday to Friday (Excluding holidays of the Company):

Mr TirthaDas (Kolkata)	tirtha.das@c1india.com	+91-9163254290	MON - FRI
Mr Artha Ghosh (Kolkata)	partha.ghosh@c1india.com	+91-8811093299	MON - FRI
Mr CH. Mani Sankar (Chennai)	chikkavarapu.manisankar@c1india.com	+91-8939284159	MON - SAT
Ms Ujwala Shimpi (Mumbai)	ujwala.shimpi@c1india.com	+91-22-66865608	MON - FRI
Helpdesk Support (Kolkata)		+91-8017272644	MON - SAT
Escalation Level 1			
Mr.Tuhin Ghosh	tuhin.ghosh@c1india.com	+91-8981165071	

1.1.2 Digital Certificate authentication

The bidder shall authenticate the bid with his Digital Certificate for submitting the bid electronically on e-Procurement platform and the bids not authenticated by digital certificate of the bidder will not be accepted on the e-Procurement platform.

All the bidders who do not have Digital Certificates need to obtain Digital Certificate. They may contact Help Desk of C1 India Pvt. Ltd.

1.1.3 Submission of Hard copies

After submission on-line bid, bidders are requested to submit the demand draft towards EMD along with original Affidavit and pre-qualification & documents (i.e. Unpriced Bid) which could not be uploaded due to its bulkiness to the following Tender Inviting Authority on/before the due date of opening date under cover of Unpriced Bid, Part - I.

Head (ROFS)
Balmer Lawrie & Co. Ltd.
Refinery & Oil Field Services
21, Netaji Subhas Road
Kolkata – 700 001

The above documents & EMD (unless bidder is a registered MSME under specific category) can be submitted either in person or through courier or by post. **Under no circumstances, physical copy of Price Bid should accompany with these documents. If price bid is submitted in hardcopy, the bid will summarily be rejected.**

Balmer Lawrie shall not take any responsibility for any delay or non-receipt of said documents. If any of the documents furnished by the bidder is found to be false / fabricated, the bidder is liable for black listing, forfeiture of the EMD, cancellation of work and criminal prosecution.

The bidder is requested to get a confirmed acknowledgment from the Tender Inviting Authority as proof of submission of hard copies.

1.1.4 Corrigendum to tender

The bidder has to keep track of any changes by viewing the addendum/ Corrigendum's issued by the Tender Inviting Authority on time-to- time basis in the e-Procurement platform. The Company calling for tenders shall not be responsible for any claims/problems arising out of this.

1.1.5 Bid Submission Acknowledgment

The user should complete all the processes and steps required for bid submission. The successful bid submission can be ascertained once acknowledgment is given by the system through bid submission number after completing all the processes and steps. Tender Inviting Authority and C1 India Pvt. Ltd. will not be responsible for incomplete bid submission by users. Users may also note that the incomplete bids will not be saved by the system and are not available for the Tender Inviting Authority for processing.

Before uploading scanned documents, the bidders shall sign on all the statements, documents, certificates uploaded by him, owning responsibility for their correctness/authenticity.

1.1.6 Disclaimer Clause

The Company (Balmer Lawrie & Co. Ltd.) nor the service provider (C1 India Pvt. Ltd.) is responsible for any failure of submission of bids due to failure of Internet or other connectivity problems or reasons thereof.

Fax/e-mail offers shall not be accepted. The company will not accept any responsibility for any delay in receipt or non-receipt of bidding document sent by post. Offers not conforming to the above mentioned requirements are liable to be rejected.

TECHNICAL SPECIFICATION

1.0.0 INTENT OF SPECIFICATION

This specification is intended for procurement of Screw Pumps with FLP Motor

2.0.0 SCOPE OF WORK / SUPPLY

The scope of supply of the vendor under this specification and associated data sheet is intended to cover design, manufacture, assembly, testing and supply of the Screw Pumps with FLP Motor as specified here in under but not limited to:

- 2.1.0 Screw Pumps as per Data sheet attached.
- 2.2.0 The pumps shall be suitable for operation in hazardous area and should be for OUTDOOR use.
- 2.3.0 Pump differential head to be calculated for lower value of sp. gravity of fluid and drive motor rating shall be selected for higher value of sp. gravity specified.
- 2.4.0 The pump should be able to handle rust/fine sized solids in suspension.
- 2.5.0 Seal as specified in the data sheet. Seal make should be Eagle Burgmann/Leak Proof make. Seal should be Non-Flushing type.
- 2.6.0 2 (two) pulleys (1 for pump side and the other for motor side) and 2 (two) belt should be supplied with each Pump Set. Pulley and Belt Guards (Aluminium – Non Sparking) should be provided. Each pulley should have 2 grooves.
- 2.7.0 Base Frame for pump and Motor and other steel embedded parts. The frame size of the motor is to be mentioned in the offer and G.A. drawing.
- 2.8.0 Accessories to be supplied by vendor : Complete set of foundation /anchor bolts.
- 2.9.0 Size and rating of both suction and discharge nozzle shall be as per ANSI B 16.5 150#RF. Bidders to include companion flange both for suction and discharge for all pumps in their offer.
- 2.10.0 One (1) set of special tools, tackles and appliances if required for erection, commissioning and maintenance of the pumps. List of special tools shall be furnished in Unpriced Bid (Part-I).
- 2.11.0 Any other features / materials required for safe and smooth operation of the pumps.

3.0.0 TECHNICAL REQUIREMENT

3.1.0 Design and Construction Features

3.1.1 Pumps shall be designed, manufactured and tested as per pump data sheet.

3.1.2 Material of Construction (MOC)

Vendor should satisfy himself with the compatibility of MOC specified in the pump data sheet. However, vendor may offer equivalent/better quality material with guarantee and the same shall be indicated in the offer.

3.2.0 Operating Conditions / Performance Requirements

3.2.1 Operating conditions are detailed out in Technical Data Sheet. Design flow rate referred to standard screw should be located close to the maximum efficiency point.

3.2.2 The rotor should be able to handle liquids with fine sized solids in suspension without damage.

3.3.3 Electric Motors shall fully conform to specifications as given in the data sheet. Also refer General Requirement and Data Sheet of Motor attached with the Technical Specification.

4.0.0 TESTING AND INSPECTION

4.1.0 Materials Test Certificates

4.1.1 All materials used for construction shall be of tested quality. Materials shall be tested as per relevant standards and Test certificates are to be furnished. In case Mill Certificates are not available, vendor shall carry out physical and chemical tests from Govt. approved Testing Agency(ies) at his own expenses.

4.1.2 Materials Test Certificates shall be related and verified with the actual materials used before construction by BL's Inspector(s) who will approve the materials. The Material Test Certificates should be submitted along with the bill/invoice.

4.2.0 Hydrostatic Test

Hydrostatic test pressure shall be 1.5 of max working pressure to be as per the data sheet.

4.3.0 Performance Tests (at vendor's works)

The following Performance Tests for Pump shall be conducted at vendor's works in presence of the BL's Inspector(s). The test result will be subject to approval by Inspector(s) before despatch:

- i) Head Vs Power
- ii) Head Vs Capacity
- iii) Vibration
- iv) Noise Level

- 4.3.1 Each pump shall be given a performance test with water prior to dispatch. Test to be conducted in accordance with "Standards of Hydraulic Institute", Screw Pump Section.
- 4.3.2 Acceptance will be predicated on hydraulic and mechanical performance during the performance test.
- 4.3.3 All rings and bushings shall be fitted to standard tolerances during tests.
- 4.3.4 Test shall be run at full speed.
- 4.3.5 The full speed performance test is to be run over a flow range from zero flow and maximum head to a point exceeding all design points/or point of maximum efficiency by a minimum of ten percent.
- 4.3.6 Pump shall be completely disassembled and rotating element removed for inspection of clearances and for any unusual wear upon completion of all performance tests. BL's Inspector may witness this inspection.

4.4.0 **Performance Tests (after installation at Site)**

After installation, Pump shall be tested for above performances. In case, the site tests are found not to meet the specified requirements, the Pump shall be rectified by the vendor at his own expenses.

5.0.0 **DOCUMENTATION**

Tenderer/Vendor shall submit drawings, data, information, test certificates, catalogues, etc. in the manner prescribed below:

5.1.0 **With the Offer**

- 5.1.1 Preliminary outline drawings indicating principal dimensions, weight and location of pump suction and discharge connection.
- 5.1.2 Cross-sectional drawing of the Pumps along with Materials of construction.
- 5.1.3 Characteristics curves of pump showing NPSH, BHP, Head, Efficiency against capacity, Speed vs Torque curve etc. Minimum recommended flow through pump shall also be indicated in the curve.
- 5.1.4 Schematic drawings of Lubrication system, sealing system, bearing/gland cooling system etc. including flow / pressure requirements.
- 5.1.5 Catalogues and illustrated literature of pump, motor, etc.

5.2.0 **After placement of the order**

The following drawings and data must be submitted within the stipulated time mentioned against each item from the date of placement of order/issue of Letter of Intent, whichever is earlier, for the BL's approval :

- 5.2.1 Foundation and GA drawings with dead load as well as operating and dynamic load (1 week).
- 5.2.2 Bar chart showing engineering, manufacture and dispatch of the equipment(2 weeks)

- 5.2.4 Various stage inspection along with inspection program / QAP (2 weeks).
- 5.2.5 Material test certificates, test reports for hydrostatic, performance and dynamic balancing tests, certified performance curves and other particulars as required by applicable clauses of this specification (prior to dispatch of equipment).
- 5.2.6 Original Manufacturer's certificate for bought out items.
- 5.2.7 Flame proof certificate from the Statutory Bodies, Routine test certificates from the manufacturer and type test certificate for motors (prior to dispatch of equipment).
- 5.2.8 The Following Curves shall be submitted as part of motor documentation:
- i) Output Vs slip.
 - ii) Output Vs p.f.
 - iii) Output Vs efficiency
 - iv) Output Vs current
 - v) Torque Vs speed
 - vi) Current Vs speed
 - vii) Thermal withstands characteristics - hot and cold (all curves to be submitted prior to despatch of equipment).
- 5.2.9 Operation, Erection and Maintenance manual of Pump, Motor, lubrication, electrical scheme and instrumentation (along with despatch of equipment).
- 5.3.0 **No. of copies of drawings, data, curves, etc. to be submitted by Vendor.**
- 5.3.1 'Drawings for approval : Two (2) copies.
- 5.3.2 Final approved drawings : Two (2) copies + Soft file
- 5.3.3 Test & Guarantee Certificates : Four (4) copies.
- 5.3.4 Operation & Maintenance Manual : Four (4) copies + Soft file

6.0.0 MARKING

- 6.1.0 Connections furnished on the equipment shall be die-stamped or permanently tagged to agree with the pump manufacturer's connection table or general arrangement drawing.
- 6.2.0 Each couplings half and spacer shall be electrically etched or die-stamped with the equipment number of the pump for which it is intended.
- 6.3.0 Nameplates shall have the following information :
- Equipment No.
 - Manufacturer's name
 - Serial No. of pump
 - Model No.

- Rated capacity
- Pumping head
- Sp. Gravity of fluid
- Speed in RPM
- Driver rating
- Direction of rotation.

7.0.0 PACKING

7.1.0 All equipment shall be packed in wooden boxes, securely anchored (skid-mounted when required) and protected for domestic shipment by truck. All un-mounted components, except motors, shall be suitably crated and firmly attached to the main pump unit for shipment.

7.2.0 One complete set of installation, operation, and maintenance instructions shall be packed and shipped with equipment, if required.

GENERAL REQUIREMENT OF MOTOR


1.0.0 MOTORS

- 1.1.0 All drive motors required for the system shall be included under the scope of the vendor as specified in the Scope of Work.
- 1.2.0 Motors shall be suitable for the voltage ratings indicated in the Data Sheet and shall conform to the following Motors provided shall have adequate performance characteristics such as starting torque, pull out torque, etc. and rating for meeting the driving and starting duty of the driven equipment.
- 1.3.0 All Motors shall be **Energy Efficient Motors confirming to Eff Level 1 / IE 2 standards of IEEMA : 19-2000; IS 12615; IS-325; IS-1231, IS-1271, IEC 34.**
- 1.4.0 All motors shall be suitable for variable speed operation with speed controlled by VFD or, Soft Starter.
- 1.5.0 Unless otherwise specified in Data Sheet, all motors shall be squirrel cage induction type with insulation class F with temperature rise limited to Class B and totally enclosed Flame Proof Type Enclosure
- 1.6.0 Motors shall be provided with 240 V anti-condensation heaters, if so specified in data sheet and shall be wired upto separate terminal box with cable glands suitable for the cables sizes specified in Data Sheet.
- 1.7.0 Motors shall be provided **with FLP type** (if mentioned specifically in the Schedule of Work) terminal boxes (where in all six winding ends are brought), FLP double compression brass cable glands etc. suitable for the type and sizes of cables. In addition the motor shall have the largest terminal box possible in the frame size.
- 1.8.0 All motors are envisaged to be started on DOL unless otherwise specified in the Data Sheet.
- 1.9.0 All motors shall be suitable for number of starts specified in the Data Sheet.
- 1.10.0 Motor frame sizes shall be in accordance with IEC recommendations.
- 1.11.0 For unidirectional motors, the direction of rotation shall be clearly marked on the body of motor.
- 1.12.0 Motors shall have a starting time, which is less than hot locked rotor withstand time of motor by at least two seconds at the rated conditions of voltage and frequency specified with driven machine coupled.
- 1.13.0 Motors shall be suitable for starting at 80% of the rated voltage against torque speed characteristics of the driven equipment.
- 1.14.0 The terminal box of MV motors shall be capable of withstanding the calculated fault level in terms of the let through energy of combination starter unit at the place of installation.
- 1.15.0 An inedible warning inscription shall be provided on the motor to indicate that switching of anti-condensation heater supply shall also be ensured before carrying out any work on the motor.

DATA SHEET FOR SCREW PUMP

Sl. No.	Item Description	Requirements
A. PUMP DETAILS		
1.0	Type of Pump	Single Screw Pump (Progressive Cavity)
2.0	Make	*
3.0	Model No.	*
4.0	Required Quantity	2 (Two) Sets
5.0	Liquid Handled	Crude Oil Sludge
B. OPERATING CONDITIONS		
1.0	Capacity m ³ /h	20 m ³ /hr – 1 no, 10 m ³ /hr-1 no
2.0	Suction Pressure (Kg/cm ² g)	(-) ve Suction Lift of 3m
3.0	Discharge Pressure/head (Kg/cm ² g)	6 Kg/cm ² g
4.0	Pumping Temperature °C	30 (normal) – 80 (max.)
5.0	Viscosity at Pumping Temperature, cst	Range 300 to 500 cst
6.0	Vapour Pressure at pump temperature	ATM
7.0	Specific Gravity	1-1.2
8.0	Solid in suspension	Rust/Sand/Mud etc.
9.0	Location	Outdoor
10.0	NPSH (available)	Negative Suction
C. PERFORMANCE		
1.0	NPSH required. M	Negative Suction
2.0	No. of Screws	1 (one)
3.0	Rated Speed	*
4.0	Mechanical Efficiency	*
5.0	Volumetric Efficiency	*
6.0	Pump import power at rates capacity	*
7.0	Rotation Facing Driving End	*
8.0	Recommended KW of Motor	*
9.0	Starting Torque at Full Load	*
10.0	Critical Speed, rpm	
11.0	Motor	Flame proof with Class F insulation and suitable for use in Gas Group IIA/IIB

D. CONSTRUCTION		
1.0	Screw Diameter, mm	*
2.0	Type of Drive	Belt Driven Alternatively, the bidder may quote for direct driven pump connected with reduction gear box and coupling
3.0	Belt make	*
4.0	Type of Joint	*
5.0	Bearing of Pump Shaft	*
6.0	Lubrication	*
7.0	Type of Seal	Flushless mechanical seal, face TC/TC
8.0	Make of Seal	Eagle Burgmen/Leakproof/equivalent approved make
9.0	Base Plant Dimension	*
10.0	Hydrotest Pressure	1.5 times working pressure
11.0	Suction Nozzle Size	4" with Companion flange and nuts & bolts
12.0	Suction Nozzle location	Side
13.0	Suction Nozzle Rating	150#
14.0	Discharged Nozzle Size	4", 150# SORF with Companion flange and nuts & bolts
15.0	Weight of Bare Pump, kg	*
16.0	Weight of Base Frame, kg	*
17.0	Total Weight of entire assembly	*
18.0	Pump Speed	* Maximum 400 rpm
E. DRIVER SPECIFICATION		
1.0	Type	Flameproof with Class F insulation and suitable for operation in Gas group IIA/IIB
2.0	Rating	
3.0	Speed	1440 rpm or suitable RPM
4.0	Make	CGL/KBL/BBL/ABB/Siemens/Kirloskar
5.0	Efficiency at 100% load	*
6.0	Full load current amps	*

7.0	No load current amps	*		
8.0	Full load torque	*		
9.0	Starting torque at rated voltage	*		
10.0	Started current at rated voltage % FLC	*		
11.0	Weight of motor, kg	*		
F. MATERIALS OF CONSTRUCTION				
1.0	Casing	C.I. to I.S 210 FG 220		
2.0	Bearing Housing	C.I.		
3.0	Shaft	SS 410		
4.0	Stator	Nitrile rubber with min 35% acrylonitrile		
G. REQUIRED ACCESSORIES WITH PUMP				
1.0	Base frame			
2.0	Foundation Bolt			
3.0	Suction & discharge Companion flanges with nuts, bolts and gaskets			
4.0	Belt			
5.0	Pulley			
6.0	Belts & Pulley Guard			
H. INSPECTION & TESTING				
1.0	Running & Testing	Required		
2.0	NPSH	Required		
3.0	Dismantling	Required		
4.0	Hydro Testing	Required		
	<ol style="list-style-type: none"> 1. * Vendor to furnish data marked thus 2. 15% margin to be kept over BHP while recommending Motor HP 3. Weight of pump set includes bare pump, base plate, coupling, motor and accessories. 4. All the mating flanges along with bolts/nuts & gasket for all the nozzle flanges shall be provided by the vendor. 			
	BALMER LAWRIE & CO. LTD. Refinery & Oilfield Services 21, N.S. Road, Kolkata – 700001			
	TITLE: DATA SHEET FOR SINGLE SCREW PUMP			
	SHEET NO: ROFS-2K16-17/P-01			REV. 0
				Date
	PREPARED BY	SAJ		
	CHECKED BY	AB		
	APPROVED BY	AKB		

MOTOR DATA SHEET

Sl. No.	MOTORS	SPECIFICATIONS
1.0	Motor Type	Squirrel Cage induction motor
2.0	KW range and voltage ratings of motors	, To be decided by the bidder. Calculation to be submitted.
	Motors of rating up to and including 149 Kw	415 V \pm 10% ; 50 Hz \pm 5% ; 3 phase AC
3.0	Class of Insulation	Class F with temperature rise limited to Class B
4.0	Degree of protection	a) IP 55 for Indoor b) IPW 55 weatherproof for Outdoor
5.0	Enclosure for	
	a) Non- Hazardous Area b) Hazardous Area	-- Hazardous, Zone 2, group IIA/IIB, T3, all electrics shall be flame proof type
6.0	Air Condensation Heaters	Required for motors of rating 37 kW & above
7.0	Method of starting	DOL
8.0	No. of starts	
	a) No. of consecutive cold starts b) No. of consecutive hot starts c) No. of equally spaced starts / hr.	3 2 4

TECHNICAL PARTICULARS

(To be filled in by the Tenderer)

1.0.0 PUMPS

1.1.0 General :

1.1.1 Equipment No. :

1.1.2 Manufacturer of Pump :

1.1.3 Model No. of Pump :

1.1.4 Type of Pump :

1.1.5 Numbers Offered :

1.2.0 Guaranteed Technical Performance1.2.1 Rated capacity, M³/ Hr : **20 m³/hr. & 10 m³/hr.**1.2.2 Suction Pressure : **Suction Lift 3m**1.2.3 Discharge Pressure : **6 Kg/cm²(g)**

1.2.4 Differential Pressure :

1.2.5 Pump Efficiency at rated capacity :
(Specify also the tolerance limit)
(Volumetric & Mechanical)1.2.6 Pump input power at rated capacity :
in KW

1.2.7 Rated output of motor required, KW :

1.2.8 Rated RPM :

1.2.9 Casing design pressure, Kg/cm²(g) :

1.2.10 Starting Torque at Full Load :

1.2.11 Rated Torque :

1.2.11 GD² Valve :**1.3.0 Construction Features**

1.3.1 Critical speed, RPM :

- 1.3.2 Screw Type :
- 1.3.3 Screw Diameter :
- 1.4.0 **Nozzle size and Rating**
- 1.4.1 Suction nozzle – size and rating :
- 1.4.2 Discharge nozzle – size and rating :
- 1.5.0 **Pump Shaft Bearings**
- 1.5.1 Type :
- 1.5.2 Type of lubrication :
- 1.5.3 Design life in terms of hours of continuous operation :
- 1.6.0 **Drive Shaft Bearings**
- 1.6.1 Type :
- 1.6.2 Type of lubrication :
- 1.6.3 Design life in terms of hours of continuous operation :
- 1.7.0 **V-Belt & Pulley**
- 1.7.1 V-Belt Specification :
- 1.7.2 Pulley Specification :
- 1.8.0 **Materials of Construction of Pump**
- 1.8.1 Rotor :
- 1.8.2 Stator :
- 1.8.3 Coupling Rod :
- 1.8.4 Shaft :
- 1.8.5 Pump Housing :
- 1.8.6 Bearing :
- 1.8.7 Gland :
- 1.8.8 Sealing : Mechanical Seal (TC/TC)

- 1.8.10 Base Plate :
- 2.0.0 **FLP MOTOR**
- 2.1.0 **General**
- 2.1.1 Name of the Manufacturer :
- 2.1.2 Driven equipment :
- 2.1.3 Duty :
- 2.1.4 Type :
- 2.1.5 Numbers offered :
- 2.1.6 Standard followed in design, manufacture and testing :
- 2.1.7 Direction of Rotation of Motor :
looking from Driving end
- 2.2.0 **Design, Construction features**
- 2.2.1 Frame designation :
- 2.2.2 Phase/connection/no. of terminals :
- 2.2.3 No. of Poles :
- 2.2.4 Degree of protection :
- 2.2.5 Insulation class :
- 2.2.6 Terminal box type :
- 2.2.7 Ambient Temperature /
Temperature Rise (°C) :
- 2.2.8 Type of lubrication :
- 2.2.9 Type of mounting for the motor
- (i) Mounting on base plate/
slide rails/flange mounted :
- (ii) Base plate/slide rails : Yes / No
included under Tenderer's
scope of supply

2.2.10	Type of Drive	:	Belt Driven
2.2.11	GD ² of the load and its corresponding speed of equipment	:	
2.3.0	Guaranteed Performance		
2.3.1	Rated output, KW	:	
2.3.2	Voltage, Volts	:	
2.3.3	Frequency, Hz	:	
2.3.4	Full Load current, Amps	:	
2.3.5	Locked Rotor current, Amps	:	
2.3.6	No load current, Amps	:	
2.3.7	Full load speed	:	
2.3.8	Power factor at 100% load	:	
2.3.9	Power factor at 75% load	:	
2.3.10	Starting time	:	
2.3.11	Full load torque	:	
2.3.12	Starting torque at rated Voltage, KgM:		
2.3.13	Starting current at rated voltage, % of f.l.c.	:	
2.3.14	Efficiency at 100% load, %	:	
2.3.15	Efficiency at 75% load, %	:	
2.3.16	No of starts/hour under hot condition (Equally spread)	:	
	(l) cold / hot (minimum)	:	
3.1.0	Weight of Pump assembly, Kg	:	
3.2.0	Weight of Motor, Kg	:	
3.3.0	Weight of base frame	:	
3.4.0	Total weight of the entire assembly, Kg	:	

ATTACHMENT-I**To**

Balmer Lawrie & Co. Ltd.
 Refinery & Oilfield Services
 21, Netaji Subhas Road
Kolkata – 700 001

BG No. : _____
 DATED : _____
 VALID UPTO : _____

This deed of Guarantee made this ____ day of ____ 20__ by the _____ a Bank registered under the _____ and having its registered office at _____ and wherever the context so requires includes its successors and assigns (hereinafter called 'The Surety') in favour of Balmer Lawrie & Co. Ltd. a Company registered under Indian Companies Act and having its registered office at 21, Netaji Subhas Road, Kolkata 700001 and wherever the context so requires include its successors and assign (hereinafter called the Company).

Whereas

1. The Company has placed a Purchase Order No. _____ dated _____ (hereinafter referred to as the Order) on M/s. _____ a Company registered under Indian Companies Act 1956 having its registered office at _____ and whereas the context so require includes its successors and assigns (hereinafter called or referred to as the Supplier).
2. Under the terms of the order, the supplier is required to furnish the Company at his own cost a Bank Guarantee for an amount of Rs. _____ (Rupees _____ only) being the amount equivalent to ____% of the total value of the order for fulfilling the contract.
3. The Surety at the request of the Supplier, agreed to issue Bank Guarantee in terms of the said order on behalf of the Supplier and the Company has agreed to accept the same. It is hereby stipulated and agreed that the Supplier shall repair or replace free of cost equipment, machinery, its parts and components found defective on account of Workmanship or defective material or inferior manufacturer, as mentioned in Warranty & Guarantee clause of the order for a period of 12 months from the date of last delivery or 18 months from the date of commissioning.
4. The Surety binds himself to pay to the extent of Rs. _____ in case of failure on the part of the Supplier to perform this guarantee provided the Company inform the Surety in writing to this effect.
5. Notwithstanding anything contained hereinafter the liability of the Surety in respect of this guarantee is restricted to Rs. _____ being ____ % value of the order.
6. The Surety shall not be discharged or released from this guarantee by any arrangement between the Company and the Supplier with or without consent of the Surety or by any alteration in the obligation of the parties or by any indulgence, forbearance whether as to payment time performance or otherwise.
7. Notwithstanding anything contained hereunder, our liability under this Guarantee shall be restricted to Rs. _____ and the guarantee shall remain in force upto _____ 20__ unless a claim is lodged under this Guarantee within three months from the date of expiry of Bank Guarantee, your rights under the Guarantee shall be forfeited and we shall be relieved and discharged from all liabilities thereunder.

In witness whereof the said Surety subscribed and set its name and seal here onto _____ the day of 20____.

Place : _____
 Date : _____

ATTACHMENT - II

VENDOR'S INFORMATION

<u>Sl no.</u>	<u>Description</u>	<u>To be filled in by the Tenderer</u>
1	Name1 (max. 35 char.)	
2	Name2 (max. 40 char.)	
3	Street/House No. (max. 50 char.)	
4	Street1 (max. 40 char.)	
5	Street2 (max. 40 char.)	
6	PIN Code (Postal Index No. e.g. "700001") (max. 6 char.)	
7	City/Place (e.g. "Kolkata" or "Dehradun") (max. 40 char.) or as the name of the city	
8	Country ("India" or "England" or as the name of country be)	
9	State (Name the state from where the office of Vendor/Supplier operates)	
10	First Tel. No. (With STD Code): (e.g. 033-22225280 or 022-66552814) (max. 30 char.)	
11	First Fax No. (with STD Code)	
12	Contact Person	
13	First Mobile No.	
14	E-mail Address) (max. 40 char.)	
15	PAN No. :	
16	GSTIN Registration No. :	
17	GSP Name (GST Suvidha Provider)	
18	Bank Name (max. 60 char.)	
19	Street (max. 35 char.)	
20	City (max. 35 char.)	
21	Branch (max. 40 char.)	
22	IFSC Code	
23	MICR Code	
24	Account No.	
25	Type of Account (Current, Savings, etc.)	

Seal and Signature of the Vendor



बामर लॉरी एण्ड कं. लिमिटेड
Balmer Lawrie & Co. Ltd.

REFINERY & OILFIELD SERVICES
21, Netaji Subhas Road,
Kolkata 700 001

TENDER DOCUMENT

FOR

SUPPLY OF SCREW PUMPS

Tender No.: ROFS/CAPEX/20-21/ENQ/05

Dated: 28.08.2020

Tender Due date & Time: 18.09.2020, 16:00 Hrs

PART-II (Priced)

NOTES:

- 1.0 Details of the item under this Schedule shall be read in conjunction with this note and corresponding Specifications, data sheets and Tender documents.
- 2.0 The tenderer should quote for all items in the Price Bid. The rates should be expressed in English both in figure and words. Where discrepancy exists between the two, rates expressed in words will prevail. Similarly, if there is any discrepancy between unit rate and total amount, the unit rate will prevail. All entries shall be in English language.
- 3.0 The rates should be quoted in the same units as mentioned in the tender schedule of quantities.
- 4.0 Every page of the tender document including annexure/enclosures shall be stamped and signed by the tenderer or his authorized representative thereby indicating that each and every page has been read and the points noted.
- 5.0 The Quantities of the item mentioned in the Schedule of Items are approximate and may vary altogether.

PRICE SCHEDULE

Sl. No	Item Description	Qty (Nos.)	Rate (Rs)	Amount (in figures) (Rs)	Amount (in words) (Rs)
	Design, Manufacture, Assembly, Testing and Supply of Screw Pump with Mechanical Seal, Flameproof Motor along with all accessories such as base frame, pulley, pulley guard, V-Belt, foundation bolt, companion flanges with nuts & bolts including special tools & tackles etc. as specified in our Technical Specification and Data Sheet				₹
1.0	Flow 20 Cum/hr, Head 6 Kg/sq. cm	1			
2.0	Flow 10 Cum/hr, Head 6 Kg/sq. cm	1			
3.0	Packing & Forwarding	%			
4.0	TOTAL BASIC BEFORE GST				
5.0	GST (.....bidder to specify %)				
6.0	GRAND TOTAL WITH GST (3+4)				

Note :

- 1) The quantities mentioned above may change, however the rates should remain firm.
- 2) Freight charges shall not be quoted by the bidder. Delivery location will be decide before dispatch. The Supplier shall arrange for the transportation, cost of which will be reimbursed at actuals separately upon submission of documentary evidence.
- 3) Please fill up, sign, stamp, scan and upload the above mentioned Price Bid in bid common form in e-procurement portal of Balmer Lawrie.

Name of the Bidder :**Signature :****Seal of the Company :****Date :**