

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

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

ANNEXURE 'A'

Material HYDRAULIC AERIAL TUBE BUNDLE EXTRACTOR FOR KPD-TAY PLANT.
Tender Enquiry No PROC-FC/CB/P&P/KPD-5049/21
Due Date
Evaluation Criteria FULL

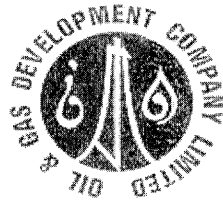
SCHEDULE OF REQUIREMENT

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	Hydraulic Aerial Tube Bundle Extractor as per attached TOR	Number	1					

Note: BID BOND: USD 3,200 OR EQUIVALENT IN PKR TO BE SUBMITTED WITH TECHNICAL BID AS PER TENDER DOCUMENT.

Suhail Atta
SUHAIL ATTA
 Manager (P&P) 7/5/21
 Ext: 3817

Shakeel Ahmad
SHAKEEL AHMAD
 Dy. Chief Engr. (Mech)
 P&P-SB, Ext: 2780
 7/5/21



OIL & GAS DEVELOPMENT COMPANY LTD

TOR FOR SUPPLY OF
DIESEL ENGINE DRIVEN HEAT EXCHANGER AERIAL
TUBE BUNDLE EXTRACTOR

*Noted
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[Signature]*

1.0 **INTRODUCTION:**

Oil and Gas Development Company Ltd (OGDCL) is Pakistan's National Oil & Gas Exploration and Production Company. OGDCL is currently operating Country's largest Oil & Gas sector including saleable Oil & Gas Processing Plants.

Kunnar-Pasakhi-Deep and Tando-Allah-Yar (KPD-TAY) is a Gas & LPG Processing Plant, located in Hyderabad District about 25 km away from Hyderabad and approx. 195 km from Karachi, Sindh Province of Pakistan. The Plant consists of two gas processing trains installed in the close proximity of oil wells. The processing plant is connected with the wells through gas gathering network which terminates into slug catcher at the process plant premises.

OGDCL intends to purchase a brand new aerial bundle extractor from an experienced and well reputed Manufacturer/Contractor/Supplier to perform repair and maintenance works on heat exchangers of various designs, sizes and weights installed at different processing units of KPD-TAY LPG & Gas Processing Plant.

2.0 **DEFINITIONS, ERRORS & CONFLICTS:**

Owner /Company	:	Oil & Gas Development Company Limited (OGDCL)
OEM	:	Original Equipment Manufacturer
Supplier / Bidder	:	Party, which vendors and / or supplies material, equipment and services to perform the duties as specified by Company in the scope of supply.

2.1 **Errors or Omissions:**

2.1.1 Review and comment by the Company at any Contractor / Supplier's drawings, procedures or documents shall only indicate acceptance of general requirements and shall not relieve the Contractor / Supplier of its obligations to comply with the requirements of this specification and other related parts of the contract documents.

2.1.2 Any errors or omissions noted by the Contractor / Supplier in this Specification shall be immediately brought to the attention of the Company.

2.2 **Conflicting Requirements:**

In the event of conflict, inconsistency or ambiguity between this Specifications, National Codes & Standards referenced in this Specification or any other documents, the Contractor/ Supplier shall refer to the Company whose decision shall prevail.

3.0 **SCOPE OF SUPPLY:**

Supply of brand new aerial hydraulic tube bundle extractor (Quantity: 01 No) as per general requirement & machine specification elaborated below in detail (refer clause 4).



4. AERIAL HYDRAULIC TUBE BUNDLE EXTRACTOR (ITEM NO.01)

4.1 GENERAL REQUIREMENTS:

The equipment supplied shall include the following requirements as a minimum:

- 4.1.1 The Prime Mover should preferably be a 04 Stroke Multi-Cylinder Diesel Engine from a renowned manufacturer, capable to operate at 0 – 47 °C ambient temperature, with pre-installed spark arrester, pre-installed exhaust muffler & diesel tank for minimum 12 hours' operation.
- 4.1.2 All the electrical and instrumentation panels must be dust and rain proof.
- 4.1.3 All the structural elements must be painted to safeguard from corrosion and atmospheric conditions.
- 4.1.4 The Bundle Extractor should preferably be wireless remote controlled. In case of wired remote controlled bundle extractor, the length of lead should be sufficient to allow minimum distance of 15 Meter for operating personnel from extractor.
- 4.1.5 The bidder must provide detailed Operation & Maintenance Manual, Detailed Parts Catalogue, Electrical Wiring Diagrams and Troubleshoot Guide along with the Bundle Extractor.
- 4.1.6 Bundle Extractor must be equipped with Human-Machine Interface (HMI) to display alarms and errors along with codes to refer from troubleshoot guide.
- 4.1.7 The Bundle Extractor must be equipped with Warning LED Light and Buzzer to warn personnel while extractor is in operation.
- 4.1.8 The Bundle Extractor should be equipped with rack & pinion driven hydraulic pull car or an equivalent mechanism capable to remove / insert bundle in one continuous and steady pull without jerks.
- 4.1.9 Bundle Extractor should be equipped with hydraulic shell flange clamps and hydraulic sling cylinders.
- 4.1.10 The superstructure of the bundle extractor should have a narrow and slim design to allow easy access for hard-to-reach bundles.
- 4.1.11 The Bundle Extractor should be equipped with auto balancing mechanism to balance the load.
- 4.1.12 Bundle Extractor should be equipped with lift frame to hook with crane for extraction / insertion of bundles installed at height.
- 4.1.13 Bidder shall provide complete literature, drawing, specification & data sheet of offered bundle extractor along with bid.
- 4.1.14 The Pull Speed of bundle extractor should be preferably in the range of 1500 to 3000 mm/minute however minor deviation shall be accepted.
- 4.1.15 Bundle Extractor should be safe to operate in Zone-01.
- 4.1.16 OEM should have experience of at least 15 years of manufacturing and supply of bundle extractors and should be able to provide after sales support and services.
- 4.1.17 The bidder to provide a separate quote for two years' spare parts along with the bundle extractor. Company reserves the right to exclude the spare parts from the final purchase order or decrease the quantity as per need.



4.1.18 Hands-on training of bundle extractor operation and control mechanism will be delivered by supplier or its local representative to Company's personnel at site.

4.2 MACHINE SPECIFICATIONS:

The tube bundle extractor should be capable to pull the tube bundle having following dimensions.

S. No.	SPECIFICATIONS	Data
1.	Length of Tube Bundle	8500 mm
2.	Diameter of Tube Bundle	2100 mm
3.	Tube Bundle Weight	25 Ton
4.	Tube Sheet Thickness	180 mm
5.	Shell Flange Thickness	220 mm
Note	i. Bidder must confirm to provide bundle extractor model suitable for tube bundle dimensions mentioned above. ii. The above table mentions the minimum required specifications and higher dimension / superior specifications may be accepted keeping in view the technical requirements. iii. Bundle Extractor should be able to handle a tube bundle of length at least up to 8000 mm (without extensions) & 8500 mm (with or without extensions)	

5. INSPECTION AND TESTING.

- 5.1 Bidder shall perform all inspections, test & certifications as per standard practice at its own cost & share the reports along with supply.
- 5.2 Bidder shall perform all inspections, test & certifications as per standard practice at its own cost & share the reports along with supply.
- 5.3 OGDCL may perform third party inspection at its own cost, however bidder must arrange all requirement for inspection & testing accordingly. Bidder shall inform inspection schedule at least two month before the inspection date so that third party inspector can be arranged accordingly to avoid delays.

6. DELIVERY SCHEDULE:

Delivery period is 120-150 days after establishment of LC.

7. PREPARATION FOR SHIPMENT:

- 7.1 Tube Bundle Extractor should be packed in wooden boxes with added soft padding to protect from damage during transportation. The packing should be capable of securing the bundle extractor from dust and rain water ingress.
- 7.2 The crating / packaging of equipment should be sea worthy and robust to ensure safe delivery at Company's site while protecting from weather effects such as but not limited to rain and dust. Lifting instruction should be marked on the packing along with center of gravity and gross load printed on packaging.

8. **FINANCIAL BID FORMAT:**

Sr. No.	Description	Price (USD)
01.	Cost of Heat Exchanger Aerial Tube Bundle Extractor	
02.	02 Years' Operational Spares (Bidder shall provide list & quantity with unit cost of each spare / part)	
03.	Freight Charges	
	Total Cost (CFR Karachi)	
<p>Note: Two year operational spares cost will not be considered for financial evaluation & selection of two year operational spares will be at OGDCL choice to include in the contract or not. Financial evaluation will be carried out on the basis of serial No. 01 & 03 only.</p>		

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