

# **IDCOL FERRO CHROME & ALLOYS LIMITED**

(A Wholly owned Subsidiary of IDCOL)

A Govt. of Odisha Undertaking

Regd. Office & Works : Ferro Chrome Project-755 020

Jajpur Road, Dist: Jajpur (ODISHA)-755020

Tel.No:06726-220212

E.Mail: ifcal@nic.in

Web. www.ifcal.nic.in



## **TENDER DOCUMENT**

**FOR**

## **RELINING AND MECHANICAL OVERHAULING OF 9 MVA ELECTRIC ARC FURNACE (FERRO CHROME)**

Tender Reference No: IFCAL/MECH/ 1616 Dtd.01.3.2022

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**IDCOL FERRO CHROME & ALLOYS LIMITED**

(A Wholly owned Subsidiary of IDCOL)

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**SHORT TENDER NOTICE**

Tender Reference No: IFCAL/MECH/1616

dtd.01.3.2022

**TENDER FOR RELINING & MECHANICAL OVERHAULING OF 9 MVA ELECTRIC ARC FURNACE (FERROCHROME)**

Last date & time of receipt of offer : 24.3.2022 (4 P.M)

For details please visit our websites : [www.ifcal.nic.in](http://www.ifcal.nic.in) or [www.idcorissa.com](http://www.idcorissa.com)

MANAGING DIRECTOR

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**IDCOL FERRO CHROME & ALLOYS LIMITED  
JAJPUR ROAD**

Tender Reference No. IFCAL/MECH/ 1616dtd.01.3.2022

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A.G.M(MECH.)

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**IDCOL FERRO CHROME & ALLOYS LIMITED  
JAJPUR ROAD**

Tender Reference No. : IFCAL/MECH/1616dtd.01.3.2022

**INFORMATION SHEET**

1. **Name of Organization:** IDCOL Ferro Chrome & Alloys Limited (IFCAL), a Govt. of Odisha Undertaking is located at Jajpur Road in the district of Jajpur, Odisha. The nearest railway station is Jajpur-Keonjhar Road located on Howrah-Chennai main line. The plant is located at about 3 K.M. from the railway station. It can also be approached by road from Bhubaneswar through NH-5 followed by NH-215.
2. Description of the package : RELINING & MECHANICAL OVERHAULING OF 9 MVA ELECTRIC ARC FURNACE (FERROCHROME FURNACE)
3. Quantity : As per the scope of work mentioned in the tender document
4. Availability of tender document : Can be downloaded from our website [www.ifcal.nic.in](http://www.ifcal.nic.in) or [www.idcorissa.com](http://www.idcorissa.com)
5. Last date & time of receipt of offer : Date 24.3.2022 at 4.00 P.M.
6. Date and time of opening of Price bid of offers : To be intimated later on to tenderers qualified in the General Bid evaluation.
7. Mode of submission : By registered post /speed post / courier service (Tenders submitted by any other mean will be rejected)
8. Sealed tender to be addressed & sent to : The Managing Director,  
Idcol Ferro Chrome & Alloys Ltd.,  
P.O. Ferrochrome Project-755020,  
Jajpur Road, Dist- Jajpur.
9. Cost of tender document (Through download from website) : Rs.525/= (Rupees five hundred twenty five only inclusive of GST) in shape of DD/ Banker's cheque/ Pay Order drawn on any nationalized bank in favour of Idcol Ferro Chrome & Alloys Limited payable at Jajpur Road, Odisha. D.D/Banker's cheque/ Pay Order is to be enclosed with the General Bid of the tender.
10. Earnest Money Deposit : Rs.1,00,000/=(Rupeesone lakh only) in shape of DD/ Banker's cheque/ Pay Order drawn on any nationalized bank in favour of Idcol Ferrochrome & Alloys Ltd. payable at Jajpur Road, Odisha.
11. Contact Reference : Contact Officer  
Mr. A.K. Sahoo, Dy.G.M(Prodn.), Mob - 8895356113  
Mr. R.R. Biswal, A.G.M(Mech.), Mob. - 9337507603

A.G.M(MECH.)



**IDCOL FERRO CHROME & ALLOYS LIMITED  
JAJPUR ROAD**

Tender Reference No. :IFCAL/MECH/ 1616

dtd.01.3.2022

**TERMS & CONDITIONS OF TENDER**

The broad list of jobs covered under the scope of work is furnished hereafter. The tenderer is advised to visit our site and obtain necessary clarifications regarding the job details, drawings etc.

1. **SCOPE OF WORK :**

**PART – I – RELINING OF 9MVA FURNACE**

(A). Digging of the furnace hearth, breaking of crust by drilling or otherwise, breaking and loosening of brick lining, tamping paste and any other material inside the hearth. The contractor to make his/their own arrangement for supply of compressed air for pneumatically operated equipments. See clause 6(i).

(B). Removal of broken pieces of crust, metal, slag, brick, paste, all materials and debris from the furnace hearth and shifting to the designated place, cleaning the hearth interior, removal of dust and ash from top of furnace hood and shifting to the designated place, cleaning the furnace floor after finishing the relining and overhauling job.

(C). Painting of shell inside surface, shifting bricks, grogs, carbon paste, tamping paste & other materials as required for the relining job from store/stacking area to the worksite, fitting asbestos mill board, carrying out brick lining, grog filling, carbon paste breaking to size & heating in ovens, paste tamping, castable laying work & ramming as per drawing no. 102-MECH/ML-5/67 (available at our site) and as per instruction of Production Deptt. alongwith of fixing of 3.15 mm M.S plate in conical shape structure inside hearth to support the rammed paste during ramming and completing the relining job in all respects.

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JAJPUR ROAD**

N.B. : The furnace shell has an inside diameter of 7500 mm. The approximate quantities of refractory materials to be laid inside the furnace are as follows.

- |    |   |         |                         |
|----|---|---------|-------------------------|
| 1. | Refractory concrete                                     | :       | 7800 (approx.. 3.9 cum) |
| 2. | Castable & grog   | :       | approx. 10 MT           |
| 3. | Fireclay bricks (SiC& Al <sub>2</sub> O <sub>3</sub> ): | approx. | 22000 pc.               |
| 4. | Carborundum bricks Sic.                                 | :       | approx. 2600 pc.        |
| 5. | Tamping paste   | :       | approx. 100 MT          |
| 6. | Crushed fireclay bricks                                 | :       | approx.. 6 MT           |

**PART – II – MECHANICAL OVERHAULING OF 9 MVA FURNACE**

- (a). Electrode holder assembly and cooling water pipes.
- (i). All contact clamps to be replaced (24 nos.)
  - (ii). All links to be replaced (24 nos.)
  - (iii). Removal, cleaning & salvaging of pressure ring bolts & bushes and may replace new one.
  - (iv). Checking of all suspension pipes and changing the damaged ones.
  - (v). All the three pressure rings to be replaced/ repaired.
  - (vi). Changing all asbestos hoses.
  - (vii). Checking pressure ring suspension rods and changing.
  - (viii). Terminal box- removal of shoes and cleaning all contact surfaces in each terminal box and refitting of shoes & bus tubes & replacing terminal box if any found worn out.
  - (ix). Checking the bus tubes and changing the damaged bus tubes (15 nos. approx.) & repairing the deformed ones by cutting away damaged portion & welding new piece.
  - (x). Removal of cooling shields, cleaning the interior with compressed air, painting with red-oxide primer paint, refitting the cooling shields.
- (N.B : If required, cooling shields of one / two electrodes may be changed)

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- (xi). Changing the damaged hydraulic hoses of electrode hoist.
- (xii). Slipping device repair work -  
Loosening springs, adjusting the upper and lower clamp alongwith required repair works, changing hoses, adjusting cylinder height, cleaning and checking other parts of the slipping device and the power pack, replacement / repair of 4 / 6 nos. cylinders, rectification / repair of oil pipe lines if found damaged.
- (xiii). Dismantling / repairing the existing furnace hood, fabrication & erection of new furnace hood as per the same dimension as the existing hood alongwith making of new hood, chimney joints.
- (xiv). Fabrication of spacer plates from 16 mm thick M.S plate and placing on top surface of the hanging contact clamps.
- (xv). Opening the stuffing boxes of suspension mantle of all electrodes and replacing the damaged non-conductive packings. Repairing the upper stuffing box bases in suspension mantle of each electrode & replacing the mica insulation packing under the base.
- (xvi). Replacing all the 1" & 1 ¼" Fullway valves (total 21 nos.) on cooling water inlet pipes & replacing fittings, tees & plugs etc.
- (b). Dismantling of furnace shell, bending the new plates as per the existing shell and erection of new shell out of steel materials
  - (i). Gas cutting & removal of the entire furnace shell with repairing of the base plate & removal of existing spout (three nos.).
  - (ii). Cleaning the slag spill on the concrete pedestals on which base plates are to be placed, leveling, placing new 25 mm thick. M.S plates of required dimensions (suit at site condition) and maintaining level to form the circular base of the furnace shell & then welding to complete the circular base, welding of these new base plates with the base ring placed below.

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- (iii). Erection of plates (20 mm thick M.S) provided by IFCAL & bend the plates as per the existing shell which includes proper alignment, fitting and welding to complete the furnace shell maintaining a circular cross section & verticality.

N.B : The abovesaid jobs are to be undertaken immediately after completion of digging & cleaning of the shell interior space but prior to start of lining activity. Approximate quantities of steel materials used in construction of furnace shell are as follows.

Furnace shell (wall)	:	20 mm thk. M.S plate, Qty = 25 MT
Furnace base plate	:	25 mm thk. M.S plate, Qty = 10 MT
Chimney	:	5 mm thick M.S plate Qty = 9 MT 4 mm thick M.S plate, Qty = 7 MT
Other misc. steel materials	:	0.5 MT

- (c). Bending of furnace shell out of 20 mm thick M.S plate provided by IFCAL as per the following description of job.

Bending of 20 mm thick M.S plate of approximate size :

- (i). 1980 mm width X 3295 mm length to following dimensions :

Axial length	-	1980 mm
Length of arc	-	3295 mm (after bending)
Inside radius	-	3100 mm

- (ii). 1980 mm width X 3700 mm length to following dimensions -

Axial length	-	1980 mm
Length of arc	-	3700 mm (after bending)
Inside radius	-	3700 mm

- (d). **Maintenance of cooling water manifold**

- (i). Dismantling of the existing trough installed below the manifold, fabrication & erection of a new trough out of 10 mm thk M.S plates :  
Approximate dimensions of the trough are as follows :

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Length = 2030 mm  
Width = 400 mm  
Height = 710 mm

(ii). Dismantling of existing 200 mm N.B U-bend assembly fitted at the trough outlet, fabrication and erection of new bend assembly (segmental bend to be fabricated).

(e). **Total replacement of 1" NB seamless steel pipes of furnace cooling water system**

Dismantling the existing 1" & 1 ¼" N.B pipe lines (i.e, 21 no. inlet pipes and 21 nos. outlet pipes), erection of new pipelines replacing the above alongwith proper fitting of M.S / G.I elbows, bends, sockets, tees, short pieces, unions etc. as per requirement and suit at site condition.

N.B : The inlet pipelines run from the manifold pipe to the furnace and outlet pipes run from the furnace to the trough placed below manifold. Approximate length of pipelines (42 nos.) :

700 mtr. ± 10%

Most parts of the pipelines are in overhead position.

(f). **Fabrication & erection of three nos. tapping spout**

i). Fabrication of base frame and mounting of the same on the furnace shell.  
ii). Fabrication & erection of new spout as per our drawing / instructions.

(g). **Replacement of yoke of electrode no.2**

Dismantling of terminal boxes (2 nos.) from the yoke of Electrode no.2 alongwith disconnection of bus tubes and water pipe lines / hoses, gouging off the yoke from its mantle, removal, accurate bending of new M.S channel 225 X 80 of required length and fabrication of 1 no. yoke assembly of dimensions identical to the removed old yoke assembly. Erection of the fabricated yoke assembly strongly fixing the same to the mantle. Fitting of terminal boxes (2 nos.) alongwith mica insulation sheet to the yoke assembly erected and fitting of bus tubes, connecting the water pipe lines / hoses to the terminal boxes and the bus tubes – The job includes any other fabrication work needed for satisfactory completion of water circulation system in the yoke.

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- (h). Changing two terminal box other than those suspended from the yoke to be replaced.
- (i). Overhauling of six nos. hydraulic hoist cylinder of electrode.  
Open the hydraulic cylinder & replace the worn out Rod seal, piston seal, wiper, 'O' ring, packing support and bushing, etc.
- (j). Dismantling, fabrication & election of smoke stacks (chimney)  
Dismantling of damaged chimney fabrication of new chimney out of 5 mm, 4 mm, 3 mm, M.S plates of dia, 1800 mm & shifted to 28 mtr. (approx..) from smoke hood roof as per drg. 1-30106, painting of chimney with one coat red oxide & one coat aluminium paints, erection of new chimney & re-fix the guy ropes. Fixing of necessary earthing fittings after completion of the chimney erection. A single party will be selected to carry out the entire job as above ie, Part-I (Relining) & Part-II (Mechanical overhauling).

2. **Eligibility criteria**

(1). **Credentials in respect of experience :**

The tenderer should have executed erection (including furnace shell lining job) of ferroalloy furnaces of minimum 9 MVA rating or above carried out the relining as well as mechanical overhauling of ferroalloy furnaces of minimum 9 MVA rating at least in two different plants.

N.B :However, the contractors who have successfully executed relining with mechanical overhauling of any furnace of Idcol Ferro Chrome & Alloys Ltd in the past are eligible forthwith to participate in the tender and they may or may not enclose the work experience credentials.

The particulars about the required experience as above should be stated clearly in the General Bid Format annexed herewith and documentary evidence should be duly enclosed. Work order substantiating the experience of the tenderer should have been issued in their favour and not in favour of their associate who might have signed an affidavit to execute the work on behalf of the tenderer. Work orders/ contracts showing requisition for supply of manpower are not acceptable. The scope of work stated in the work orders/ executed contracts executed must indicate the job clearly.

Signature & seal of the tenderer

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- (2). The tenderer should have been registered with the Central Board of Excise & Customs & possess valid GST registration certificate / document.
- (3). The tenderer must possess a valid labour license issued by any government licensing authority.
- (4). PAN

3. **Earnest Money Deposit (EMD)**

The tenderer is required to deposit earnest money amounting to Rs.1,00,000/= (Rupees one lakh only) in shape of an account payee Demand Draft / Banker's Cheque/ Pay order issued by **any nationalized bank in favour of Idcol Ferro Chrome & Alloys Ltd payable at Jajpur Road**. After opening of the bids, the EMD of unsuccessful tenderers will be refunded to them. The EMD of the successful tenderer will be converted to security deposit on placement of work order.

4. **Benefit to Micro and Small Enterprises (MSEs)**

Without prejudice to the generality of any clauses of this documents, local Micro & Small Enterprises shall be exempted from payment of earnest money (EMD) and shall pay 25% of the prescribed security deposit as per the provisions of the clause number 03.

Local Micro and Small Enterprises shall be entitled for benefits, subject to terms and conditions, as under.

EMD Exemption Vendors registered under 'Micro & Small Enterprises Act' (MSE) are exempted from submission of EMD. For claiming the exemption bidders should provide / enclose a self-attested valid certificate issued by any approved body of 'Ministry of Micro, Small & Medium Enterprises' (MSME) such as 'National Small Industries Corporation' (NSIC) or 'District Industries Centre' (DIC) for EMD exemption.

Signature & seal of the tenderer

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5. **Availability of the tender papers and the cost**

The tender papers can be downloaded from our websites [www.ifcal.nic.in](http://www.ifcal.nic.in) or [www.idcorissa.com](http://www.idcorissa.com). While submitting the tender, the tenderer is required to annex with the General Bid the cost of the tender papers amounting to Rs.525/= (Rupees five hundred twenty five only) inclusive of GST in shape of an account payee Demand Draft/ Banker's cheque/ Pay Order issued by any nationalized bank in favour of Idcol Ferro Chrome & Alloys Ltd. payable at Jajpur Road. The cost of tender paper is non-refundable. GSTIN of Idcol Ferrochrome & Alloys Ltd is 21AAACI9099L1Z6.

6. **Scope of supply of IFCAL.**

(i). All spares, materials for mechanical overhauling as well as furnace relining, steel materials, steel plates, pipes, valves, fittings and consumables like welding electrodes, D.A. gas, bolts & nuts, cotton waste, lubricating oil, grease, water & electricity etc shall be supplied by IFCAL for the jobs as free issue items.

(ii). Free accommodation with free electricity and water for labour and supervisors shall be provided by IFCAL for 15-20 persons.

(iii). Only breakfast and lunch can be provided for contractor's workmen at our Works canteen inside the factory premises at usual subsidized rate.

7. **Responsibility & scope of supply of the contractor :**

(i). All tools and tackles, welding machine with cables (3 sets), gas cutting sets, personal protective equipments, etc. as will be required for completion of the job satisfactorily shall be arranged by the contractor at his own cost. The contractor is to arrange at their own cost required chain pulley blocks (1 MT capacity), angle sanders, hand hacksaws, hacksaw blades, sanding discs, spanner sets, pipe threading dies for 1" NB & 1 ¼" NBsteel/ G.I pipes, threading taps ¾", 7/8" & 1 ¼", 1" BSP, pneumatic rock drill, jack hammer, rammer & all other tools and tackles as will be required for timely completion of the job.

Signature & seal of the tenderer

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(ii). The work will be done on round the clock basis & the contractor is to engage enough manpower to complete each part of the job within the stipulated period which will be intimated to them before the start of the work.

(iii). The contractor is to shift the materials/ spares required for the overhauling/ relining job from the store/ stacking place to the worksite & also they must shift the rejected/ discarded materials/ spares from worksite to the stores/ designated place.

(iv). After the relining/ overhauling job is over, the furnace will be switched on. During the period from furnace switch on to the first metal tapping, if any operational problem arises due to defective workmanship, the contractor is to engage his workmen as early as possible to set right the system. The contractor shall keep atleastthree persons at our site until the first tapping to attend the problems related to furnace maintenance, if any arises.

(v). The contractor shall arrange bending machine for bending the furnace shell out of 20 mm thick M.S plate which provided by IFCAL at his own cost. Adequate facility for continuous supply of compressed air (at a pressure of 7 kg f/cm<sup>2</sup> gauge) which may be required during the relining process for operation of pneumatic rock drill, pneumatic jack hammer and rammer is not available at our Works. The contractor is required to arrange at their own cost trolley-mounted diesel-run air compressor and operator alongwith accessories (hoses & fittings) for operation of these pneumatic tools. Or else, the contractor may arrange at their own cost electrically-operated tools for drilling/ breaking of hard metal/ slag inside the furnace and ramming of paste. In any case, it is the responsibility of the contractor to arrange the abovesaid tools (pneumatic / electrical) at their own cost.

Signature of the contractor

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8. **Completion period**

The entire job as stated in the scope of work alongwith the necessary testing/trial shall be completed within a period not more than 90 days from the date of switching off the furnace. Five days prior to switching off the furnace for the relining & overhauling job, the contractor shall be informed to arrange for mobilization of their manpower & equipments. After issue of work order, the contractor is to furnish a bar chart indicating the start and finish of all the various activities of the entire job starting from the day 1 ie, the date of switching off the furnace. However, the jobs are to be taken up as per the bar chart finalized mutually between the contractor and the company Idcol Ferro Chrome & Alloys Ltd.

9. **Statutory formalities**

In the event of placement of order, the contractor shall submit to us, before start of the work, the list of workmen and supervisors to be engaged by them for execution of the jobs. The contractor's workmen should be duly enrolled under ESI scheme. Alternatively, the contractor may arrange proper insurance cover for their workmen. The contractor is required to apply for plant entry gate pass in favour of their workmen and supervisors by obtaining the ESI Declaration Form from our HRD Deptt. and submitting the forms duly filled in. The contractor shall abide by and comply with all laws, rules, regulations & guidelines pertaining to labour engagement inside the premises of Idcol Ferro Chrome & Alloys Ltd. They may contact our HRD Deptt. for their guidance. The contractor will be liable to pay any penalty imposed by any statutory authority arising on account of violation of labour laws, rule & regulations or any non-compliance.

10. **Safety rules** :

The contractor shall be solely responsible for the safety of the persons engaged by him / them. Prior to starting the job, clearance from Safety Deptt. is required.

The workmen of the contractor should use necessary personal protective equipments while on the job.

Signature & seal of the tenderer

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11. **Taxes & duties and other statutory levies.**

(a). The contractor shall defray all charges, such as rent, local taxes, other payments and compensations, if any, in connection with the procurement/ hiring of machinery and equipments to be used by them in the maintenance work.

(b). Income tax will be deducted at source from the certified bill amount as per rule.

12. **Quoting the rate**

For furnace relining job, the charges should be quoted item wise ie, PART-I(A), PART-I(B) & PART-I(C) as stipulated in the Price Bid format.

For furnace mechanical overhauling job, the charges should be quoted item wise, i.e, PART-II (a), PART-II(b), PART-II (c), PART-II (d), PART-II (e), PART-II (f), PART-II (g), PART-II(h), PART-II(i) & PART-II(j) as stipulated in the Price Bid format.

N.B : (i). GST will be paid extra. The appropriate Service Accounting Code (SAC) is to be mentioned in the GST invoice. The corresponding GST rate at present is 18% (i.e, CGST 9% plus OGST 9%).

(ii). If any part of the job is not to be undertaken as per advise of management post placement of work order, then the same shall be excluded from the scope of work & no payment for that part of the job will be made.

(13). **Validity of tender** :

In case of award of contract in favour of the successful tenderer, the price and other terms and conditions as finalized mutually and incorporated in the work order shall remain valid for a period of 150 days from the date of issue of the short tender notice. If the tenderer opts to withdraw from the tender proceeds during the abovesaid validity period, then the earnest money submitted shall be forfeited.

14. **Billing & payment**

No mobilization advance will be paid.

Signature & seal of the tenderer

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During the progress of job, 70% of the charges against each job item (in case of both relining and mechanical overhauling) will be paid on completion of the individual job item on submission of bill and subsequent processing. 20% of the charges will be paid on satisfactory completion of the entire job (ie, both furnace relining & mechanical overhauling).

Balance 10% of the charges will be paid after six months of completion of the job or furnace switching on whichever is earlier. This six-month period shall be treated as the defect liability period.

The bills relating to the furnace relining job will be processed by the Production Deptt. and the bills relating to mechanical overhauling will be processed by the Mechanical Deptt.

15. **List of documents to be submitted along with the General Bid**

- (i). All pages of the downloaded tender papers **excluding** the Price Bid part
- The tenderer is to put his / her full signature and seal on each page
- (2) Credentials in respect of experience  
-as prescribed in eligibility criteria  
(each page to be signed at the bottom)
- (3). Copy of GST registration certificate / document.  
(each page to be signed at the bottom)
- (4). Copy of labour license  
(each page to be signed at the bottom)
- (5). EMD
- (6) Cost of tender paper.
- (7). Proof of type of ownership of the tenderer's firm.  
- i.e, limited company, partnership firm, proprietorship firm, individual etc
- (8). Copy of Income Tax PAN card.

N.B: (1). The Price Bid format duly filled in should be enclosed in an envelope other than that containing the General Bid & other documents. No other document should be kept inside the envelope containing the filled in Price Bid.

Signature & seal of the tenderer



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(2). If any deviation from our proposed completion period (90 days) as mentioned at clause no.7 of the terms is suggested by the tenderer, then they may submit a separate statement for the same.

(3). Tenders not accompanied with the cost of tender paper & EMD will be rejected outright.

16. **Forcemajeure**

The performance of the contract, either wholly or in part, will be governed by the standard forcemajeure clauses. In case of any failure of the contract due to strike, riot, cyclone, natural calamities labour unrest, lock out ,etc. and all other causes beyond control of our company, Idcol Ferro Chrome & Alloys Ltd shall not be responsible for the same in any manner whatsoever.

17. **Dispute & arbitration :**

a. All disputes, differences, controversies or claims arising out of or in relation to construction, meaning and operation or effect of this contract or breach or termination or invalidity thereof, if not resolved by mutual discussion, then either party may give to the other party notice in writing about the existence of such disputes, question or difference. In such case, the matter shall be referred to the Chairman, Idcol Ferro Chrome & Alloys Ltd, Bhubaneswar as the “Sole Arbitrator” whose decision and award made thereof shall be final and binding on both the parties, ie, the contractor and Idcol Ferro Chrome & Alloys Ltd.

b. The parties hereto mutually agree that notwithstanding the place of execution, the contract shall be deemed to have been entered into by the parties at Bhubaneswar and for the purpose of any dispute, the jurisdiction shall be limited to any court under the jurisdiction of the Hon’ble High Court of Odisha.

c. The venue of arbitration will be the IDCOL House, Unit-II, Ashok Nagar, Bhubaneswar

Signature & seal of the tenderer

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18. **Jurisdiction** :

All legal proceedings in any manner arising out of or in relation to the contract between the parties can only be initiated in a court of law situated within the territorial jurisdiction of the State of Odisha and none of the parties shall have the liberty of initiating any legal proceedings anywhere beyond the territorial jurisdiction of the State of Odisha.

19. **Submission of offer and opening of bids** :

The tenderer should carefully fill in the General Bid & the Price Bid formats, put his/ her full signature and seal at the specified space in the Bids.

The General Bid shall be enclosed along with the required credentials/ supporting documents and the instrument of EMD and cost of tender paper (i.e, Demand Draft/ Banker's Cheque/ Pay Order) as prescribed at clause no.13 in a sealed envelope superscribed as "General Bid – R/F no.1 relining". Similarly the Price Bid should be enclosed in a separate sealed envelope superscribed as "Price Bid – R/F no.1. Each of aforesaid sealed envelopes should be addressed to the Managing Director, Idcol Ferro Chrome & Alloys Ltd, At/PO : Ferro Chrome Project, Jajpur Road, Dist. : Jajpur – 755020, (Odisha) & also the name and address of the tenderer should be mentioned on the left side of each envelope. Both these sealed envelopes, ie, the one containing the General Bid and the other containing the price Bid should be kept in a bigger envelope and sealed properly. This single bigger envelope should be superscribed with "OFFER FOR R.F NO.I – RELINING" & the last date of receipt and should be addressed to the Managing Director, Idcol Ferro Chrome & Alloys Ltd, At/PO : Ferro Chrome Project, Jajpur Road, Dist. : Jajpur – 755020, (Odisha). The name and address of the tenderer should be mentioned on the left side of this envelope also. The tender as above should be sent so as to reach the office of the Managing Director latest by 4.00 P.M on 24.3.2022 which is the last date of receipt. Tenders received after the due date shall not be taken into consideration.

Signature & seal of the tenderer

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**IDCOL FERRO CHROME & ALLOYS LIMITED  
JAJPUR ROAD**

20. The tenderer is advised to visit our Works on any working day between 9.00 AM to 5.00 PM and satisfy/ acquaint himself/ themselves as to the details of the jobs, site condition, quantum of work, available facilities, administrative procedure, statutory requirements etc. before submission of offer. No claim on grounds of want of knowledge in such respect will be entertained. The management of Idcol Ferro Chrome & Alloys Ltd, Jajpur Road reserves the right to (i). accept/ reject any/ all offers or (ii) cancel the tender or (iii) assign only a part of the work to a tenderer without assigning any reason.

Signature & seal of the tenderer

A.G.M(Mech.)

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**IDCOL FERRO CHROME & ALLOYS LIMITED  
JAJPUR ROAD**

Tender Reference No. IFCAL/MECH/1616 dtd.01.3.2022

**GENERAL BID FORMAT**

Sl.no.	Description	
1	(a) Name of the tenderer	
	(b) Full address	
	(c) E mail ID :	
	(d) Telephone No. Mobile No.	
	(e) Fax No.	
2	Whether the tenderer is a private/ public limited company or proprietorship firm or registered partnership firm (Enclose copy of Memorandum & Articles of Association or copy of Partnership Deed or proof of proprietorship as the case may be )	
3	Date of establishment/registration of the firm.	
4	Date of commencement of business	
5	Name of the Managing Director/ Director/Partner/Proprietor/ Individual as the case may be	
6	Name of the contact person : (for execution of job) designations : contact no. :	

Signature & seal of the tenderer

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**IDCOL FERRO CHROME & ALLOYS LIMITED  
JAJPUR ROAD**

7	Income tax PAN (enclose the copy of the PAN card).	
8	GST registration No. (enclose copy of registration certificate)	
9	Proof of experience (Enclose following documentary evidence) Copy of at least two work orders in respect of the specific jobs stated in the Eligibility Criteria (Clause no.2 (1) of the Terms and Conditions of tender.	<u>Work order ref. no.Client</u> (1)  (2)
10	EMD: <b>Rs. 1,00,000/=</b> <b>(Rupees one lakh only)</b> DD/Banker's Cheque/Pay Order No./date  Name of the issuing bank	
11	Cost of tender document : Rs.525/= (Rupees five hundred twenty five only inclusive of GST) DD/ Banker's cheque/ Pay Order No./ date  Name of issuing bank	

Signature & seal of the tenderer

: P/22 :



**IDCOL FERRO CHROME & ALLOYS LIMITED  
JAJPUR ROAD**

Tender Reference No. IFCAL/MECH/ 1616 dtd.01.3.2022

**PRICE BID FORMAT**

Job item	Job description	Charge for individual job item (Rs.)
	<b><u>PART – I – RELINING OF 9 MVA FURNACE</u></b>	
I(A)	Digging of the furnace hearth, breaking of crust by drilling or otherwise, breaking and loosening of brick lining, tamping paste and any other material inside the hearth. The contractor to make his/their own arrangement for supply of compressed air for pneumatically operated equipments. See clause 6(i).	..... for job item 1(A)
I(B)	Removal of broken pieces of crust, metal, slag, brick, paste, all materials and debris from the furnace hearth and shifting to the designated place, cleaning the hearth interior, removal of dust and ash from top of furnace hood and shifting to the designated place, cleaning the furnace floor after finishing the relining and overhauling job.	..... for job item 1(B)
I(C)	Painting of shell inside surface, shifting bricks, grogs, carbon paste, tamping paste & other materials as required for the relining job from store/ stacking area to the worksite, fitting asbestos mill board, carrying out brick lining, grog filling, carbon paste breaking to size & heating in ovens, paste tamping, castable laying work & ramming as per drawing no. 102-MECH-SPB-ML-5/67 (available at our site) and as per instruction of Production Deptt. alongwith of fixing of 3.15 mm M.S plate in conical shape structure inside hearth to support the rammed paste during ramming and completing the relining job in all respects. N.B. : The furnace shell has an inside diameter of 7500 mm. The approximate quantities of refractory materials to be laid inside the furnace are as follows. 1. Refractory concrete : 7800 (approx.. 3.9 cum) 2. Castable : approx. 10 MT 3. Fireclay bricks (SiC& Al <sub>2</sub> O <sub>3</sub> ) : approx. 22000 pc. 4. Silicon carbide bricks Sic.:approx. 2600 pc. 5. Tamping paste :approx. 100 MT 6. Crushed fireclay bricks : approx.. 6 MT	..... for job item 1(C)

Sub-total(Part-I) : Rs.....

N.B : GST, as applicable, shall be paid extra.

Signature & seal of the tenderer

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**IDCOL FERRO CHROME & ALLOYS LIMITED**  
**JAJPUR ROAD**

Job item	Job description	Charge for individual job item (Rs.)
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II(a)	<p><b><u>PART – II – MECHANICAL OVERHAULING OF 9 MVA FURNACE</u></b></p> <p><u>Electrode holder assembly and cooling water pipes.</u></p> <p>(i). All contact clamps to be replaced (24 nos.)</p> <p>(ii). All links to be replaced (24 nos.)</p> <p>(iii). Removal, cleaning &amp; salvaging of pressure ring bolts &amp; bushes.</p> <p>(iv). Checking of all suspension pipes and changing the damaged ones.</p> <p>(v). All the three pressure rings to be replaced/repared.</p> <p>(vi). Changing all asbestos hoses.</p> <p>(vii). Checking pressure ring suspension rods and changing.</p> <p>(viii). Terminal box- removal of shoes and cleaning all contact surfaces in each terminal box and refitting of shoes &amp; bus tubes &amp; replacing terminal box if any found worn out.</p> <p>(ix). Checking the bus tubes and changing the damaged bus tubes (10 nos. approx.) &amp; repairing the deformed ones by cutting away damaged portion &amp; welding new piece.</p> <p>(x). Removal of cooling shields, cleaning the interior with compressed air, painting with red-oxide primer paint, refitting the cooling shields.</p> <p>N.B : If required, colling shields of one / two elctrodes may be changed)</p> <p>(xi). Changing the damaged hydraulic hoses of electrode hoist.</p> <p>(xii). Slipping device repair work - Loosening springs, adjusting the upper and lower clamp alongwith required repair works, changing hoses, adjusting cylinder height, cleaning and checking other parts of the slipping device and the power pack, replacement / repair of 4 / 6 nos. cylinders, rectification / repair of oil pipe lines if found damaged.</p> <p>(xiii). Dismantling / repairing of furnace hood, fabrication &amp; erection of new furnace hood as per the same dimension as the existing hood alongwith making of new hood, chimney joints.</p> <p>(xiv). Fabrication of spacer plates from 16 mm thick M.S plate and placing on top surface of the hanging contact clamps.</p>	<p>.....</p> <p>for job item II(a)</p>
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Signature & seal of the tenderer

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**IDCOL FERRO CHROME & ALLOYS LIMITED  
JAJPUR ROAD**

Job item	Job description	Charge for individual job item (Rs.)
	<p>(xv). Opening the stuffing boxes of suspension mantle of all electrodes and replacing the damaged non-conductive packings. Repairing the upper stuffing box bases in suspension mantle of each electrodes replacing the mica insulation packing under the base.</p> <p>(xvi). Replacing all the 1” &amp; 1 ¼” Fullwayvalves (total 21 nos.) on cooling water inlet pipes&amp;replacingfittings, tees &amp; plug etc.</p>	
II(b)	<p>Dismantling of furnace shell, bending the new plates as per the existing shell and erection of new shell out of steel materials</p> <p>(i).Gas cutting &amp; removal of the entire furnace shellincluding the base plate, dismantling &amp; removal of existing spout (three nos.).</p> <p>(ii).Cleaning the slag spill on the concrete pedestals on which base plates are to be placed, leveling &amp; placing new 25 mm thick M.S plates of required dimensions (suit at site condition) and maintaining level to form the circular base of the furnace shell &amp; then welding to complete the circular base, welding of these new base plates with the base ring placed below.</p> <p>(iii). Erection of bend plates (20 mm thick M.S)&amp;bend the plates as per theexistingshell which includes proper alignment,fitting and welding to complete the furnace shell maintaining acircular cross section &amp;verticality.</p> <p>N.B :The abovesaid jobs are to be undertaken immediately after completion of digging &amp; cleaningof the shell interior space but prior to startof liningactivity. Approximate quantities of steelmaterialsused in construction of furnace shell areas follows.</p> <p>Furnace shell (wall) : 20 mm thk. M.S plate, Qty = 25 MT</p> <p>Furnace base plate : 25 mm thk. M.S plate, Qty = 10 MT</p> <p>Chimney : 5 mm thick M.S plate Qty – 9 MT 4 mm thick M.S plate – Qty – 7 MT</p> <p>Other misc. steel materials : 0.5 MT</p>	<p>..... for job item II(b)</p>

Signature & seal of the tenderer

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**IDCOL FERRO CHROME & ALLOYS LIMITED**

**JAJPUR ROAD**

Job item	Job description	Charge for individual job item (Rs.)
II(c).	Bending of furnace shell out of 20 mm thick M.S plate as per the description given at Clause no.(c) of Part-II.	..... for job item(c)
II(d)	<u>Maintenance of cooling water manifold</u> (i). Dismantling of the existing trough installed below the manifold, fabrication & erection of a new trough out of 10 mm thk M.S plates : Approximate dimensions of the trough are as follows :Length = 2030 mm Width = 400 mm Height = 710 mm (ii). Dismantling of existing 200 mm N.B U-bend assembly fitted at the trough outlet, fabrication and erection of new bend assembly (segmental bend to be fabricated).	..... for job item II(d)
II(e)	<u>Total replacement of 1” NB &amp; 1 ¼” N.B seamless steel pipes of furnace cooling water system</u> Dismantling the existing 1” & 1 ¼” N.B pipe lines (i.e, 21 nos. inlet pipes and 21 nos. outlet pipes), erection of new pipelines replacing the above alongwith proper fitting of M.S / G.I elbows, bends, sockets, tees, short pieces, unions etc. as per requirement and suit at site condition. N.B : The inlet pipelines run from the manifold pipe to the furnace and outlet pipes run from the furnace to the trough placed below manifold. Approximate length of pipelines (42 nos.) :700mtr. ± 10% Most parts of the pipelines are in overhead position.	..... for job item II(de)
II(f)	<u>Fabrication &amp; erection of three nos. tapping spout</u> i). Fabrication of base frame and mounting of the same on the furnace shell. ii).Fabrication& erection of new spout as per our drawing / instructions.	..... for job item II(f)
II(g)	<u>Replacement of yoke of electrode no.2</u> Dismantling of terminal boxes (2 nos.) from the yoke of Electrode no.2 alongwith disconnection of bus tubes and water pipe lines / hoses, gouging off the yoke from its mantle, removal, accurate bending of new M.S channel 225 X 80 of required length and fabrication of 1 no. yoke assembly of dimensions identical to the removed old yoke assembly. Erection of the fabricated yoke assembly strongly fixing the same to the mantle. Fitting of terminal boxes (2 nos.) alongwith mica insulation sheet to the yoke assembly erected and fitting of bus tubes, connecting the water pipe lines / hoses to the terminal boxes and the bus tubes – The job includes any other fabrication work needed for satisfactory completion of water circulation system in the yoke.	..... for job item II(g)

Signature of the tenderer

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**IDCOL FERRO CHROME & ALLOYS LIMITED**  
**JAJPUR ROAD**

Job item	Job description	Charge for individual job item (Rs.)
II(h)	Changing one terminal box other than those suspended from the yoke to be replaced.	..... for job item II(g)
II(i)	Overhauling of six nos. hydraulic electrode hoist cylinder of electrode	..... For job item-II(i)
II(j)	Dismantling, fabrication & erection of chimney	..... For job item II(j)

Sub-Total : Rs.....

(Part-II)

Total quoted price :Rs.....  
 (ie, Part-I & Part-II)

(In word

.....)

N.B : GST, as applicable, shall be paid extra.

Signature & seal of the tenderer

