

**Institute for Defence Studies and Analyses  
No 1, Development Enclave  
Rao Tula Ram Marg  
New Delhi – 110 010**

**Tender no. : EM/HVAC/061/2012**

## **TENDER NOTICE**

Subject :- Repair/ Rewinding of three compressors of HVAC Model 30HXC 310 A of Carrier make and Descaling Operation of 2 Condensers & Evaporator Units installed at IDSA , New Delhi .

IDSA invites sealed bids(Two Bid system ) from reputed, experienced, qualified and eligible firms for Rewinding /repair of three Compressors and Descaling of two condensers/chillers of HVAC system (300TR) of carrier make installed at IDSA, New Delhi.

Interested parties/ firms may submit their tender in a sealed cover supersubscribing “Tender for Repair/Rewinding of 3 Compressors and Descaling operation of 2 condensers /chillers of HVAC 300TR AC Units” to Asst .Director (Administration ) IDSA , New Delhi- 110 010 on or 1500 Hrs before 16<sup>th</sup> November , 2012.

Tender document can also be downloaded from the website [www.idsa.in](http://www.idsa.in)

IDSA reserve the right to accept or reject any tender or part thereof or all the tenders without assigning any reason thereof at any point of time during the tendering process .

**(Hemant Kumar )  
Estate Manager**

**Rewinding /REPAIR OF COMPRESSORs OF HVAC OF  
CARRIER MAKE & Descaling Operation OF TWO  
CONDENSORS/chillers FOR SMOOTH FUNCTIONING OF A.C.  
PLANT INSTALLED IN THE BASEMENT OF IDSA , Delhi Cantt -  
110010**

## **TENDER DOCUMENT**

COST OF TENDER DOCUMENT: - Free of Cost

Last date for submission of tender  
document upto 3PM - 16.11.2012

**INSTITUTE FOR DEFENCE STUDIES AND ANALYSES,  
NO1, DEVELOPMENT ENCLAVE,  
RAO TULA RAM MARG,  
NEW DELHI - 110010**

**Institute for Defence Studies and Analyses  
No 1, Development Enclave, Rao Tula Ram Marg, New Delhi - 110 010**

IDSA/EM/HVAC/061/2012

**Notice inviting bid for Rewinding / repair of 3 compressor of HVAC of Carrier make and descaling of 2 condensers of the Centralised Air Conditioning unit installed at IDSA, New Delhi.**

Sealed item rates/bids as detailed below are invited for the under mentioned scope of work on behalf of Director General, IDSA, upto 3:00 p.m. on the date indicated below from the eligible contractors and specialized firms having adequate past experience of the works of similar nature. Bids received after the prescribed time and date shall not be considered. The details of the Air Conditioning Plant installed at IDSA are given in Annexure –A.

2. Name of the work as well as details about tender document are given below;

- (i) A) Repair of 3 No. compressor of HVAC of Carrier Make.
  - B) Descaling operation 2 condensers/chillers of AC plant installed at IDSA.
  - C) Leakage detection, correction of machine No 1.
  - D) Replacement of filters, Oil.
  - E) Charging of Refrigerant.
- (ii) Cost of tender = Free of cost /-
- (iii) Earnest Money Deposit = Rs. 50,000/- (Rupees Fifty Thousand only)
- (iv) Last date of receipt of tender = 1600 Hrs on or before 16.11.2012.
- (v) Validity Period of the Offer : 3 Months from the submission of tender.
- (vi) Security Deposit : 10 % of the Quoted Amount

3. The earnest money as indicated above is to be deposited by the tenderers/ quotaioners along with the tender bid by a bank draft in favour of IDSA, New Delhi. No interest will be paid on the EMD.

4. The firm who down loads the tender documents from the IDSA's website shall also have to submit tender documents alongwith earnest money alongwith the attested copies of Registration, Sales Tax Certificate, PAN as partnership deed, experience certificate as prescribed in the tender document in one envelope marked as "A" and written as supportive documents. Bids/Tender documents in another envelope marked as "B" written on the same as "Quotation/tender document". These both envelopes shall be placed in a bigger envelope on which name of work shall written. Both of these envelopes are to be sealed individually. The quotation/tender documents of the agency, who fulfils the eligibility criteria specified above shall be opened.

5. The bid/Tender Documents shall be in two parts in separate envelopes marked as Technical Bid +EMD and Financial bid separately. Both envelopes sealed separately by wax and put up in another bigger envelop marked as "B" as detailed above.
6. IDSA reserve the right to accept or reject any tender or part thereof or all the tenders without assigning any reasons thereof.

Tender may also be seen at our website [www.idsa.in](http://www.idsa.in)

(Hemant Kumar)  
Estate Manager

# Technical Bid

**INSTITUTE FOR DEFENCE STUDIES AND ANALYSES**  
**No 1, Development Enclave , Rao Tula Ram Marg,**  
**NEW DELHI- 110 010**

## **Notice Inviting Tender**

Name of work : Repair of compressor of HVAC as well as Descaling operation for smooth functioning of Centralized A.C. Plants, IDSA , New Delhi – 110 010

1. Wax sealed Tenders on behalf of IDSA are invited in two bid system i.e. “Technical + EMD “ and Financial Bid separately for the above work. Contractors who have successfully carried out at least one similar work as mentioned in tender document.
2. Tenders should be in the specified form which may be obtained from the IDSA during office hours upto 1500 Hrs 16<sup>th</sup> November 2012. Tender document may also be downloaded from the website of IDSA.
3. Tenders should be submitted in double ‘Sealed Covers’ super-scribed with the name of the work. These will be received upto 3:00 p.m -16.11.2012. Tenders should be dropped in the tender box kept at the reception counter of the IDSA, before the closing date and time indicated. (Rates are to be quoted separately for each work such as for repair of Compressors and Descaling Operation .
4. The earnest money amounting to Rs. 50,000/- (Rupees Fifty Thousand only) by demand draft or pay order of a schedule bank and drawn in favour of IDSA, New Delhi should accompany the tender document in the envelope of technical bid. Tenders received without earnest money will be deemed invalid and will be outrightly rejected.
5. The IDSA reserves the right to accept or reject any tender or part thereof or all tenders without assigning any reasons thereof.
6. Canvassing in connection with the tenders is prohibited and the tenders submitted by the contractor who resorts to canvassing is liable for rejection.
7. The tenderer shall quote rates both in figures and words. He shall also workout the amount for each item of work and write in both figures and words (In Annexure1, 2 and B ). On check, if there are differences between the rates quoted by the tenderer in words and in figures or in the amount worked out by him, the higher rate of the two shall be considered.
8. The tenderer should visit and thoroughly inspect the AC Plant , cooling towers and related machines and accessories at IDSA , New Delhi.

9. Before tendering the tenderer shall inspect the site to fully acquaint himself about the condition in regard to accessibility of the site, nature and extent of ground, working condition of site and locality including stacking of materials, installations of tools and plants ( T&P) etc. conditions affecting accommodations and movement of labour etc. required for the satisfactory execution of the work contract. No claim what so ever on such account shall be entertained by the IDSA in any circumstances.
10. IDSA reserves the right to forfeit the earnest money if the contractor fails to commence the work within one month.
12. Except writing rates and amounts, the tenderer should not write any conditions or make any changes, additions, alterations and modifications in the printed form of tenders. Conditional tender shall not be accepted

### **13. Performance Security:**

- (i) The Contractor should furnish a performance security (in form of bank guarantee ) to IDSA, New Delhi of an amount equaling 10% of the contract price valid up to 12 months from the date of completion of work . The 80% payment will be released subject to the production of bills . The contractor has to give the functional warranty of the unit repaired for minimum period of 12 months from the date of completion of work. The balance 20 % will be released after successfully running of the plant for one Month during the summer season .
- (ii) Failure of the successful bidder to comply with the above requirements shall constitute sufficient grounds for the annulment of the award in which event IDSA may make the award to the next evaluated bidder or call for new bids.
- (iii) The proceeds of the performance security shall be payable to IDSA, New Delhi as compensation resulting from the Vendor's failures to complete its obligation under the contract.
- (iv) The earnest money can be adjusted against the performance security deposit, to be furnished by the successful tenderer.
- (v) The performance security deposit would be refunded after the successful completion of warranty period and no interest would be paid.
- (vi) Attached a copy of Service tax, Pan, ST No. and other relevant documents.
- (vii) List of firms/ organiser under which the firm has completed at least 1 similar type of works.
- (viii) The firm should be registered under any Govt. Department .
- (ix) The firm shall start the work within 15 days from the date of award of the contract .
- (x) Penalty Clause : The work should be completed within 45 days from the date of award failing to which a penalty of Rs 1000/- ( Rupees one thousand) per day will be imposed which will be deducted from the contractors bill . However Decision of the Estate Manager will be final & Binding .

#### 14. Acceptance Certificate

The contractor will test all the systems offered to him by IDSA for repair & descaling operation and give his acceptance to provide services under warranty based on their proper functioning.

#### 15. Supervision & certificate of satisfactory work

Designated authority of IDSA will supervise the work provided under the contract.

- i) If at any stage, the service of the firm to whom the contract is awarded, is not found satisfactory, the Estate Manager reserves the right to terminate the contract with IMMEDIATE effect without assigning any reasons.
- ii) In case contractor fails to provide the required standard for AC unit and also fail to maintain the adequate and required temperature during the summer seasons, necessary penalty will be imposed and payment will be deducted from Security deposit.

#### 16. Payment Conditions

- a) Payment will be made only after completion of the work and one month running of the Plant. 80% payment will be released after successful completion of the work
- b) Payment in respect of repairs of items shall be made after receipt satisfaction Certificate from the concerned department of the IDSA after checking the operation.

#### 17. Scope of work

##### Machine No 1

<u>SL</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	Dismantling the 75 TR compressors from the machine transporting the same to workshop, opening the compressors after dismantling the same.	02 Job
2	Replacement of following parts in the compressors :-	
	a) Driver core filters	04 Nos
	b) Internal Filters	02 Nos
	c) External Filters	04 Nos
	d) Compressor oil for Screw compressor	02 Pale (37.8 Ltrs)
	e) Water Sensors	04 Nos
	f) Temperature Sensors	02 Nos
	g) Bearing JL 69 C4 9A	02 Nos
	h) Bearing JLM 506849	02 Nos



	j) Bearing	04 Nos
	k) 'O' Ring as per sample	02 Nos
3	Revarnishing the compressor stator after cleaning the same by chemical varnishing the same to assemble in compressor	02 Jobs
4	Reassembling the compressors after repairs and transportation of same to site connecting it to suction and discharge of system	02 Jobs
5	Pressure testing of condensor with Nitrogen, identifying the leakage in Chiller/Condensor tubes, plugging the same after opening the end covers complete testing the system on pressure by Nitrogen, flushing the condenser and chiller by Nitrogen complete refitting the system after overhauling	02 Jobs
6	Vacuuuming the plant, charging the compresor oil in system charging the R - 134 Gas in the system after pressure testing commissioning the plant after repairs & overhauling for normal operation	01 Job
7	Water Flow switch of Chiller & Condensor	2 Nos
8	Supply of R-134 Gas for the plant	123 Kg
10.	Descaling Operation of the Condensor & Chiller	01 Job
	Total	

## **MACHINE NO 2**

Overhauling Of Compressor (A)			
Sr No	Description	Qty	Unit
1	Dismantling , removing and transporting of Compressor	1	Nos
2	Compressor oil	75.6	Ltr
3	Drier Core	4	Nos
4	Internal Filter	4	Nos
5	External filter	2	Nos
6	06N Bearing Set	1	Lot
7	Motor winding sensors	2	Nos

8	Charges for dismantling of compressor side, taking out of the parts, dismantling of 06 nos existing old bearings of compressor side and 4 Nos bearings of motor side , refitting of new bearing and assembling of compressor , refitting of compressor into body shell and termination of lead connection and testing including Rewinding of stator	1	Job
9	Pressure testing of the system , vacuumisation and dehydration of chiller , revacuumisation and refrigerant charging, recommissioning of chiller including refrigerant charging	1	Ckt
	Descaling of Condensors (B)		
10	Descaling of Condensors & chillers for obtain suitable discharge/head pressure , the work involves cost of materail& labour	1	Job

The contractor is advised to visit and inspect the unit installed in IDSA to assess the requirement of repair of the AC Plant.

## **17.2 Descaling operation for AC Plant**

- a) The contractor shall employ only competent, skilled, qualified and trained men with adequate experience (5 yrs or more) for descaling operation.
- b) The contractor will be strictly responsible to the true intent of the descaling Operation (using proper quality of antiscalent and the head pressure should not be higher than prescribed Carrier recommendation) of system in regard to workmanship and the diligent execution of the work.
- c) The contract must strictly ensure the proper quality of work by deploying suitable technically qualified persons.
- d) The contractor shall give or provide all necessary constant and whole time superintendence during the execution of the work.
- e) No claim shall be entertained on account of increasing price of labour due to any cause whatsoever, if therein is any loss to the Institute with regard to property or material due to negligence of the contractor or his workmen, the same will be recovered from him.
- f) In case of any accident to his worker, he will be solely responsible for the loss and medical cost and other liability.
- k) The contractor will be responsible for the safe storage of the material. Any pilferage by him or his worker will be recovered from him and will also be debarred carrying out any work in the Authority in future.

## **18. Terms of repair of Air Conditioning Unit**

- (i) The firm shall first repair the compressors of HVAC and thereafter Descaling work will be permitted ..
- (ii) All the component required for replacement will be of OEM make (Branded) or of equivalent quality. Contractor will not be allowed to use any sub-standard parts and components. The same are to be shown to the concerned officer of IDSA before replacement.

19 The bidders are required to give details about their maintenance infrastructure facilities including address of local servicing workshop address in the bid document.

20. The statement of technical service offered by the bidder are to be given on separate page .

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## **22. Opening of Bids**

- 22.1 At the time of opening of the tender on the scheduled date, only the main envelop as well as envelop marked 'A' shall be opened to insure that necessary documents for bidding as well as separate demand drafts from any scheduled bank for the EMD amount been provided by the bidder.
- 22.2 At the first instance envelope marked as 'Technical bid' will be opened and will be evaluated by a committee constituted for the said purpose. Envelope marked as Financial bid will be opened later on by a committee constituted for the purpose only in respect of those bidders, who has been cleared at the time of technical evaluation. The financial bid will be opened in the presence of the qualified bidders.

## **23. Special Terms & Condition**

- 1. The contractor shall take over the repairs of compressor of AC Plant in all respects from the deptt. and will be responsible for its safety/ working & maintenance for a year.
- 2. The contractor shall be responsible for any damage caused to the chiller plants, compressor, boiler, cooling towers, pump, motors electrical/control panels and contractors etc. wring etc. due to mishandling or due to negligence during the work .
- 3. The contractor has to arrange all Tools & Parts required for the successful completion of the work.
- 4. The Contractor will not use any acid for descaling purpose which can harm the tubes of Condensor/chiller .
- 5.The work shall be carried out in accordance with specifications required to be maintained in Carrier AC Plant and to the entire satisfaction of the IDSA.
- 6.In case of any dispute, the decision of the IDSA will be final and the contractor has no right to move to arbitration/court. Decision of the Director General IDSA will be final and Binding

## **Annexure – A**

### Details of the air conditioning plant

- |                       |   |                                 |
|-----------------------|---|---------------------------------|
| 1. Make               | : | Carrier                         |
| 2. Machine model      | : | 30 HX C310A Screw<br>Chillers . |
| 3. Air handling units | : | 36 nos.                         |
| 4. Boiler             | : | 02 nos.                         |
| 5. Pump & motors      | : | 12 nos.                         |
| 6. Cooling towers     | : | 02 nos.                         |
| 7. Electrical panel   | : | As available                    |
| 8. Control panels     | : | As available                    |

## **Financial Bid**

### **Annexure**

#### **- B**

Name of work: Repair/ Rewinding of three compressors of HVAC Model 30HXC 310 A of Carrier make and Descaling Operation of 2 Condensers & Evaporator Units installed at IDSA , New Delhi .Repair /Overhaul of AC plant Installed in IDSA ,New Delhi -110 010

S. NO.	Description of item	Amount in words	Amount in figures
1.	Repair /Overhauling /leakage correction as per details description in Annexure-1		
2.	Repair/Rewinding of AC compressor of HVAC with detailed description of repairs/Renovation /replacement as per Annexure-2		
Total Rs. In Figure & words			

Signature of bidder

Address and seal of firm if any

Place & Date:

Company seal:

Note:

1. Prices to be quoted in Indian Rupees only in both figures & words.

2. Any cutting etc. shall be duly circled & signed by the bidder failing which Financial bid may be rejected.
3. Vendor should quote price all inclusive, including all taxes and duties etc. excluding service Tax for successful execution of the work.
4. Payment will be released after deducting TDS and penalty, if any.

Details of Financial Bid				Annexure-2	
Overhauling Of Compressor (A)					
Sr No	Description	Qty	Unit	Rate	Amount
1	Dismantling , removing and transporting of Compressor	1	Nos		
2	Compressor oil	75.6	Ltr		
3	Drier Core	4	Nos		
4	Internal Filter	4	Nos		
5	External filter	2	Nos		
6	06N Bearing Set	1	Lot		
7	Motor winding sensors	2	Nos		
8	Charges for dismantling of compressor side, taking out of the parts, dismantling of 06 nos existing old bearings of compressor side and 4 Nos bearings of motor side , refitting of new bearing and assembling of compressor , refitting of compressor into body shell and termination of lead connection and testing including Rewinding of stator	1	Job		
9	Pressure testing of the system , vacuumisation and dehydration of chiller , revacuumisation and refrigerant charging, recommissioning of chiller including refrigerant charging	1	Ckt		
	ToTal Amount (A)				
	Descaling of Condensors (B)				
1	Descaling of 2 Nos Condensors & chillers for obtain suitable discharge/head pressure , the work involves cost of materail& labour	2	Ckt		
	Total cost for B				
	Total (A+B)				
	Sign of the Contractor/Firm				



## SCHEDULE OF WORK

Annexure-1

Name of Work :- Repairs / Overhauling of 300 TR screw chiller, pugging leakage in the damaged condensor tube i/c replacement of parts, compressor oil filters etc.

<u>SL</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>RATE</u>	<u>AMOUNT</u>
1	Dismantling the 75 TR compressors from the machine transporting the same to workshop, opening the compressors after dismantling the same.	02 Job		
2	Replacement of following parts in the compressors :-			
	a) Driver core filters	04 Nos		
	b) Internal Filters	02 Nos		
	c) External Filters	04 Nos		
	d) Compressor oil for Screw compressor	02 Pale (37.8 Ltrs)		
	e) Water Sensors	04 Nos		
	f) Temperature Sensors	02 Nos		
	g) Bearing JL 69 C4 9A	02 Nos		
	h) Bearing JLM 506849	02 Nos		
	j) Bearing	04 Nos		
	k) 'O' Ring as per sample	02 Nos		
3	Revarnishing the compressor stator after cleaning the same by chemical varnishing the same to assemble in compressor	02 Jobs		
4	Reassembling the compressors after repairs and transportation of same to site connecting it to suction and discharge of system	02 Jobs		
5	Pressure testing of condensor with Nitrogen, identifying the leakage in Chiller tubes, plugging the same after opening the end covers complete testing the system on pressure by Nitrogen, flushing the condenser and chiller by Nitrogen complete refitting the system after overhauling	02 Jobs		
6	Vacuuming the plant, charging the compresor oil in system charging the R - 134 Gas in the system after pressure testing commissioning the plant after repairs & overhauling for normal operation	01 Job		

7	Water Flow switch of Chiller & Condensor	2 Nos		
8	Supply of R-134 Gas for the plant	123 Kg		
9	Labour charges for carryout the above work	01 Job		

Total