

**NIQ for Checking Servicing and Repairing of Air washer and Air cooled Chiller Unit**

<p>विषय: NATRAX में एयर वॉशर और एयर कूल्ड चिलर की सर्विसिंग और गरगगत की जाँच के लिए क्वोटेशन (NIQ) आमंत्रित करने की सूचना</p>	<p>Subject: Notice Inviting Quotation (NIQ) for Checking Servicing and Repairing of Air Washer &amp; Air cooled Chiller at NATRAX</p>
<p>नेशनल ऑटोमोटिव टेस्ट ट्रैक्स (NATRAX) नेशनल ऑटोमोटिव बोर्ड (NAB) के तहत ऑटोमोटिव परीक्षण और प्रमाणन केंद्र हैं, जो भारत सरकार के भारी उद्योग मंत्रालय द्वारा गठित एक स्वायत्त निकाय है। NATRAX की स्थापना लगभग की गई है। पीथमपुर के पास सभी प्रकार के ऑटोमोबाइल के व्यापक परीक्षण और मूल्यांकन के लिए 3000 एकड़ भूमि,</p>	<p>National Automotive Test Tracks (NATRAX) are Automotive Testing &amp; Certification Centre under National Automotive Board (NAB) which is an autonomous body constituted by Ministry of Heavy Industries, Government of India. NATRAX has been set up on approx. 3000 acres of land for comprehensive testing and evaluation of all types of automobiles, near Pithampur,</p>
<p>NATRAX को "NATRAX में एयर वॉशर और एयर कूल्ड चिलर यूनिट की सर्विसिंग और मरम्मत और रखरखाव की जांच" के लिए सेवा प्रदान करने के लिए अनुभवी और इच्छुक एजेंसियों की आवश्यकता है, उल्लिखित इकाइयों का विवरण दस्तावेजों में संलग्न है। बोलीदाताओं से अनुरोध है कि कार्य के दायरे को बेहतर ढंग से समझने के लिए कृपया NATRAX पर जाएँ।</p>	<p>NATRAX is requires experienced and interested agencies to render the service for "Checking Servicing and Repairing &amp; maintenance of Air washer and Air cooled Chiller Unit at NATRAX" the details of the mentioned units are enclosed in the documents. Bidders are requested to please visit NATRAX for better understanding the scope of work.</p>
<p>नियम एवं शर्तें:</p>	<p>Terms &amp; conditions:</p>
<p>भुगतान: आरए बिल के माध्यम से अनुबंध मूल्य का अधिकतम 90% (स्पेयर/प्रतिस्थापित वस्तुओं की लागत सहित) कर चालान और सहायक दस्तावेज जमा करने पर काम पूरा होने तक भुगतान किया जाएगा। शेष 10% वारंटी अवधि के सफलतापूर्वक पूरा होने के बाद जारी किया जाएगा। जीएसटी का भुगतान एजेंसी द्वारा भुगतान रसीद जमा करने पर जारी किया जाएगा। सभी भुगतान EIC/NATRAX के प्रमाणीकरण के बाद ही जारी किए जाएंगे।</p> <p>सामग्री अग्रिम (यदि अनुरोध किया गया है) - संबंधित सामग्री के मूल कर चालान जमा करने पर सामग्री मूल्य का 90%, साइट पर सामग्री की प्राप्ति और ईआईसी/NATRAX द्वारा प्रमाणित होने के बाद जारी किया जा सकता है और इसे अंतिम बिल में समायोजित किया जाएगा।</p> <p>समापन अवधि: कार्य आदेश जारी होने की तारीख से 30 दिनों के भीतर। ऐसा न होने पर अनुबंध मूल्य का 0.1% प्रतिदिन अनुबंध मूल्य के अधिकतम 10% तक NATRAX द्वारा परिसमाप्त क्षति (एलडी) के रूप में काटा जा सकता है।</p> <p>वारंटी अवधि: कार्य पूरा होने की तारीख से 6 महीने।</p>	<p>Payment: Up to maximum 90% of contract value (including cost of spares/replaced items) through RA Bill shall be paid up to completion of work, on submission of tax invoice &amp; supporting documents. Balance 10% shall be released after successful completion of warranty period. The payment of GST shall be released on submission of paid receipt by agency. All the payments shall be released only after certification of EIC/NATRAX.</p> <ul style="list-style-type: none"> <li>• Material advance (If requested)- 90% of material value on submission of original tax invoice of respective material, may be released after receipt of material at site and certified by EIC/NATRAX &amp; same shall be adjusted in final bill.</li> <li>• Completion period: within 30 days from the date of issuance of work order. Failing which 0.1% of contract value per day up to maximum 10% of contract value, may be deducted by NATRAX as Liquidated damage (LD).</li> <li>• Warranty period: 6 months from the date of completion of work.</li> </ul>

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*18/07-8*

<p>कोटेशन जमा करना: इच्छुक बोलीदाता/एजेंसियां नीचे उल्लिखित ईमेल आईडी के माध्यम से पासवर्ड संरक्षित फ़ाइल के माध्यम से 03 अक्टूबर 2023 को 1500 बजे या उससे पहले अपनी सबसे प्रतिस्पर्धी दरें जमा कर सकते हैं:</p> <p><a href="mailto:a.prabhakar@natrip.in">a.prabhakar@natrip.in</a> <a href="mailto:anuj.kumar@natrip.in">anuj.kumar@natrip.in</a>,</p> <p>या इच्छुक बोलीकर्ता द्वारा मुहरबंद लिफाफे में कोटेशन 03 अक्टूबर 2023 को 1500 बजे या उससे पहले NATRAX HUB पर भी जमा किया जा सकता है।</p>	<p>Submission of quotations: The interested bidders/agencies can submit their most competitive rates on or before 1500 hrs on 03<sup>rd</sup> Oct 2023 through password protected file via email ids mentioned below:</p> <p><a href="mailto:a.prabhakar@natrip.in">a.prabhakar@natrip.in</a> <a href="mailto:anuj.kumar@natrip.in">anuj.kumar@natrip.in</a></p> <p>OR The quotations in sealed envelope may also be submitted by interested bidder, at NATRAX HUB on or before 1500 hrs on 03 Oct 2023.</p>
<p>अस्वीकरण: NATRAX सभी या किसी भी कोटेशन को स्वीकार/अस्वीकार/रद्द करने का अधिकार सुरक्षित रखता है या किसी भी स्तर पर इस प्रक्रिया को वार्षिक कर सकता है, और बोली लगाने वाले को इस मामले में किसी भी नुकसान का दावा करने का अधिकार नहीं है। यह दस्तावेज़ अंग्रेजी और हिंदी दोनों भाषाओं में है, हालांकि किसी भी विसंगति के मामले में अंग्रेजी मान्य होगी</p>	<p>Disclaimer: NATRAX reserve the rights to accept/reject/cancel all or any quotation or can annual this process at any stage, and bidder does not have the right to claim any losses in this case. This document is in both English &amp; Hindi Language, however in case of any discrepancy English will prevail.</p>
<p>सफल बोली लगाने वाले को इंटीग्रिटी पैक्ट समझौते पर हस्ताक्षर करना होगा</p>	<p>Successful bidder has to sign and Integrity pact agreement</p>





The Scope of work is below (Repairing/Maintenance/Installation & Testing works of the Air Washer Unit), here is a list of the necessary components and their specifications:

**1. V-Belt for Air Washer:**

- Type: V-Belt
- Size: Select the appropriate size based on the pulley and belt drive system requirements
- Material: High-quality rubber or synthetic material suitable for power transmission

**2. Canvas Cloth for Air Washer:**

- Type: Canvas Cloth
- Material: Durable and washable canvas fabric suitable for air filtration and moisture absorption

**3. Drain Pump for Air Washer:**

- Type: Drain Pump
- Capacity: Sufficient capacity to handle the drainage requirements of the Air Washer system
- Power: Select a pump with adequate power rating for efficient pumping

**4. Float Valve 20mm:**

- Type: Float Valve
- Size: 20mm
- Material: High-quality corrosion-resistant material suitable for water control and regulation

**5. Drain Pipe:**

- Type: Drain Pipe
- Size: Select the appropriate size based on the drainage system requirements
- Material: Durable and corrosion-resistant material suitable for water drainage

**6. Cleaning Chemical:**

- Type: Cleaning Chemical
- Purpose: Select a suitable cleaning chemical specifically formulated for cleaning and maintenance of Air Washer components
- Consider environmental and safety factors when choosing the cleaning chemical

**7. Oil and Grease:**

- Type: Oil and Grease
- Purpose: Select appropriate lubricants and greases for the motor, fan, and other moving parts of the Air Washer system

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- Consider the manufacturer's recommendations and compatibility with the components

**8. Metallic Filter:**

- Type: Metallic Filter
- Purpose: Select a high-quality metallic filter suitable for air filtration and dust/particulate removal
- Material: Corrosion-resistant metal mesh or perforated sheet

**9. Pump:**

- Type: Pump
- Purpose: Specify the specific pump type based on the application and system requirements (e.g., water circulation pump, recirculation pump, etc.)
- Capacity: Select a pump with sufficient flow rate and head pressure to meet the Air Washer system requirements
- Power: Choose a pump with an appropriate power rating for efficient operation

**10. DIDW Centrifugal Fan:**

- Type: Double Inlet Double Width (DIDW) Centrifugal Fan
- Capacity: As per the requirements of the Air Washer Unit (based on outlet velocity not exceeding 550 M/minute)
- Speed: Not exceeding 1000 RPM

**11. TEFC Weatherproof Motor:**

- Type: Totally Enclosed Fan Cooled (TEFC) Motor
- Phase: 3-phase
- Weatherproof: Suitable for outdoor installation
- Power: Select the motor power rating according to the fan capacity and system requirements

**12. Multisheave Pulley:**

- Type: Multisheave pulley
- Mounting: Mount the pulley on both the motor and fan shaft

**13. Belt Guard:**

- Type: Belt guard for safety and protection of the belt drive system
- Ensure it is compatible with the selected belt drive and pulley

**14. Common Base with Metallistik Vibration Isolators:**

- Type: Common base to mount both the motor and fan
- Vibration Isolator



## Power train lab (PWT LAB)

One time repairing of Carrier Make Air Cooled Chiller (Qty.: 2 ),Pumps Sets & AHUs Unit as well as also including its Automation System & various types relevant panels

Panels Details: Incomer :630 Amp/ Outgoing (i)04 Primary Pump (5 Hp)/(ii) 02 Chillers 91.5 Kw (iii) 02 Secondary Pumps(12.5Hp)/VFD Controllers/(iv) Pressurisation Switch (SP – LPC 12.5 Hp/VFD DRIVES 02 nos.)

Make: Carrier/Model : 30XA Aircooled Chiller/Input Power : 91.5 Kw

Capacity : 92 TR(Refringent :-HFC-134 a/Weight -102 Kg)

Qty: 2 Nos.

PLC Panels/Screw Compressor/Filters/Electrical Panel/Chiller,s line relevant various Valves /Strainers & its Panel/Chiller Oil Filter(Max Working pressure :32 bar)/MUFLER/Economizer Subassembly

AHU Details:- soak room /Chassis Dyno Room /EV Labs -Battery Testing Section:-

AHU 04(Office area) :-

FAN/3 hp motor/Filter(Size :A-2/50/50)/Coil Size(635x1171/6.2)/ AHU-4 PLC PANEL, AHU 04 Thyristor Panel, DOL Starters

AHU02(Soak Room):-

FAN/7.5 Hp MOTORS/AHU-2 PLC PANEL, AHU 02 Thyristor Panel, DOL Starters/ Filter (Size :A-4/50/50) / Coil Size(1206x1541/5)

AHU03(Emission Room):- FAN/3 hp motor/Filter(Size :A-2/50/50)/Coil Size(635x1171/6.2)/ AHU-4 PLC PANEL, AHU 04 Thyristor Panel, DOL Starters

TFA-2: fan/2.2 Hp Motors/Coil/ Filter Section & Fan Section/Thermistor sensors/PLC PANEL

TFA-1:- fan/3 Hp Motors/Coil/ Filter Section & Fan Section/Thermistor sensors/PLC PANEL

TFA-1: VFD PANEL/PLC PANEL/CHILLAR LINES / HVAC DUCT

HRAVH Unit / HRAVH PLC PANEL/VFD PANEL/EXTRACT FAN/HEAT RECOVERY WHEEL PANEL/THYRISTOR PANEL/HR-PENHUMIDTY FIRE PANEL/FILTER/COIL

## AHU 03 Unit/PLC PANEL/HEATER BUS PANEL/THYRISTOR PANEL/DOL STARTER



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**Work Scope for One-Time Maintenance of Carrier Make Air Cooled Chillers with relevant complete system i.e. Pumps Set (05 NOs), AHU & HRAVH (06 Nos), Automation System of complete chiller system's , and various chiller 's related Panels etc.:-**

1. Carrier Make Air Cooled Chillers (Quantity: 2/ Model: 30XA Air-cooled Chiller/Input Power: 91.5 Kw /Capacity: 92 TR (Refrigrant: -HFC-134 a/Weight -102 Kg)
  - Perform one-time repairing of the Carrier Make Air Cooled Chillers.
  - Inspect and service the chillers, including components such as compressors, filters, valves, strainers, oil filter, muffler, and economizer subassembly.
  - Ensure the chillers are operating within the specified parameters.
  - Check and rectify any issues with the chiller's automation system and relevant panels.
  - Verify the working condition of the VFD drives and pressurization switch.
2. Pumps Sets:
  - Inspect and service the primary pumps (5 Hp) and secondary pumps (12.5 Hp).
  - Check the pump motors and their starters.
  - Ensure proper functioning of the VFD controllers for the pumps.
3. AHU (Air Handling Units) Maintenance:
  - AHU 04 (Office Area):
    - Inspect and service the AHU 04, including the fan, 3 Hp motor, filter, coil, and associated panels (PLC panel, thyristor panel, DOL starters) etc.
  - AHU 02 (Soak Room):
    - Inspect and service the AHU 02, including the fan, 7.5 Hp motors, filter, coil, and associated panels (PLC panel, thyristor panel, DOL starters) etc.
  - AHU 03 (Emission Room):
    - Inspect and service the AHU 03, including the fan, 3 Hp motor, filter, coil, and associated panels (PLC panel, thyristor panel, DOL starters) etc.
4. TFA-2 and TFA-1:
  - Inspect and service TFA-2 and TFA-1 units, including the fan, motors (2.2 Hp for TFA-2 and 3 Hp for TFA-1), coil, filter section, fan section, thermistor sensors, and associated panels (PLC panel, VFD panel).
5. HVAC Duct and Chiller Lines:
  - Inspect and service the HVAC duct and chiller lines.
  - Check the functioning of the VFD panel and PLC panel.
6. HRAVH Unit (Heat Recovery Air Ventilation and Heating):
  - Inspect and service the HRAVH unit, including the extract fan, heat recovery wheel panel, thyristor panel, HR-pen humidity fire panel, filter, coil, and associated panels (PLC panel, VFD panel).

- Check the functioning of the heater bus panel and the thyristor panel.

7. AHU 03 Unit:

- Inspect and service AHU 03 unit, including the PLC panel, heater bus panel, thyristor panel, and DOL starter.

Note: The maintenance scope provided is based on the information provided. It is advisable to conduct a detailed inspection and consult with relevant experts or technicians to ensure comprehensive and accurate maintenance for the specific equipment and system.



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NIQ for Checking Servicing and Repairing of Air washer and Air cooled Chiller Unit NIQ No.  
NATRAX/PROC/C&U/23/58 (R1)  
Bill of quantities for repairing of Air cooled chiller & Air washer

S.No.	Description of item	Unit	Quantity	Rate including GST	Amount incl. GST
1	One Time repairing of Air cooled chiller (Carrier make) with pump and AHU Unit including spare parts if any with 6 months warranty	Lot	1		
2	Repairing of Airwasher units with 6 month warranty				
2.1	V-Belt replacement with alignment in air washer	Nos	20		
2.2	Canvass cloth replacement	Nos	20		
2.3	Drain pump replacement	Nos	10		
2.4	Float valve 20 mm replacement	Nos	10		
2.5	Drain pipe extension	Nos	72		
2.6	Chemical cleaning	Nos	10		
2.7	oil and grease	Nos	10		
2.8	Metallic Filter	Nos	62		
2.9	Repairing of Pump	Nos	10		
	<b>Total (incl GST)</b>				

Note: the quoted rates should be inclusive of GST and complete scope of work including manpower, spares etc complete and Bidders are requested to visit site before submitting quote



Signature of bidder