

**बिड दस्तावेज़ / Bid Document**

<b>बिड विवरण/Bid Details</b>	
<b>बिड बंद होने की तारीख/समय /Bid End Date/Time</b>	23-04-2026 18:00:00
<b>बिड खुलने की तारीख/समय /Bid Opening Date/Time</b>	23-04-2026 18:30:00
<b>बिड पेशकश वैधता (बंद होने की तारीख से)/Bid Offer Validity (From End Date)</b>	120 (Days)
<b>मंत्रालय/राज्य का नाम/Ministry/State Name</b>	Ministry Of Civil Aviation
<b>विभाग का नाम/Department Name</b>	Ai Engineering Services Limited
<b>संगठन का नाम/Organisation Name</b>	Ai Engineering Services Limited
<b>कार्यालय का नाम/Office Name</b>	Ai Engineering Services Limited
<b>कुल मात्रा/Total Quantity</b>	5
<b>वस्तु श्रेणी /Item Category</b>	Supply of Nitrogen-Boosted Aircraft Engine Water Wash Rig complete unit , Installation, Commissioning Charges , Training Charges , Spares , Delivery
<b>GeMARPTS में खोजी गई स्ट्रिंग्स / Searched Strings used in GeMARPTS</b>	Aircraft Engine Compressor Wash System
<b>GeMARPTS में खोजा गया परिणाम / Searched Result generated in GeMARPTS</b>	High Pressure Breathing Air Compressor Petrol Engine Driven, Modular Table / Meeting Table / Centre Table (V2), Compressed Natural Gas (CNG) Compressor As per HPCL Specification (V2), IGBT Based Heavy Duty Power Source Air Plasma Cutting System with compressor, Hand Held Brush Cutter (V2), Unmanned Aerial Vehicle / Drones for Agricultural Purposes (V3), Drone or Unmanned Aerial Vehicle with Customized Payload (Defence Forces - Navy, Army and Air Force), Laboratory Glassware Washers, Small UAV for ISR Purpose (80 Minute Endurance) as per MHA QRs, Truck Mounted Fog Cannon / Anti Smog Gun / Dust Suppression System
<b>अधिसूचना के लिए चयनित प्रासंगिक श्रेणियाँ / Relevant Categories selected for notification</b>	<ul style="list-style-type: none"> <li>Compressed Natural Gas (CNG) Compressor As per HPCL Specification (V2)</li> </ul>
<b>बीओक्यू शीर्षक /BOQ Title</b>	Supply Installation Testing Commissioning of Aircraft Engine Water Wash Rig at AIESL Chennai
<b>बिडर का न्यूनतम औसत वार्षिक टर्नओवर (3 वर्षों का) /Minimum Average Annual Turnover of the bidder (For 3 Years)</b>	6 Lakh (s)
<b>मूल उपकरण निर्माता का औसत टर्नओवर (गत 3 वर्षों का)/OEM Average Turnover (Last 3 Years)</b>	6 Lakh (s)

<b>बिड विवरण/Bid Details</b>	
उन्हीं/समान सेवा के लिए अपेक्षित विगत अनुभव के वर्ष/ <b>Years of Past Experience Required for same/similar service</b>	3 Year (s)
टर्नओवर के लिए एमएसई को छूट प्राप्त है / <b>MSE Relaxation for Turnover</b>	Yes   Partial   Turn over value - 2 (in lakhs)
स्टार्टअप के लिए अनुभव के वर्षों और टर्नओवर से छूट प्रदान की गई है / <b>Startup Relaxation for Years of Experience and Turnover</b>	No
विक्रेता से मांगे गए दस्तावेज़/ <b>Document required from seller</b>	Experience Criteria,Past Performance,Bidder Turnover,Certificate (Requested in ATC),OEM Authorization Certificate,OEM Annual Turnover,Additional Doc 1 (Requested in ATC) *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
क्या आप निविदाकारों द्वारा अपलोड किए गए दस्तावेज़ों को निविदा में भाग लेने वाले सभी निविदाकारों को दिखाना चाहते हैं? संदर्भ मेनू है/ <b>Do you want to show documents uploaded by bidders to all bidders participated in bid?</b>	Yes (Documents submitted as part of a clarification or representation during the tender/bid process will also be displayed to other participated bidders after log in)
बिड लगाने की समय सीमा स्वतः नहीं बढ़ाने के लिए आवश्यक बिड की संख्या। / <b>Minimum number of bids required to disable automatic bid extension</b>	1
दिनों की संख्या, जिनके लिए बिड लगाने की समय-सीमा बढ़ाई जाएगी। / <b>Number of days for which Bid would be auto-extended</b>	5
ऑटो एक्सटेंशन अधिकतम कितनी बार किया जाना है। / <b>Number of Auto Extension count</b>	2
विगत प्रदर्शन / <b>Past Performance</b>	10 %
बिड से रिवर्स नीलामी सक्रिय किया/ <b>Bid to RA enabled</b>	No
बिड का प्रकार/ <b>Type of Bid</b>	Two Packet Bid
प्राथमिक उत्पाद श्रेणी/ <b>Primary product category</b>	Supply of Nitrogen-Boosted Aircraft Engine Water Wash Rig complete unit
तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय / <b>Time allowed for Technical Clarifications during technical evaluation</b>	5 Days
निरीक्षण आवश्यक (सूचीबद्ध निरीक्षण प्राधिकरण /जेम के साथ पूर्व पंजीकृत एजेंसियों द्वारा)/ <b>Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)</b>	No

**बिड विवरण/Bid Details**

अनुमानित बिड मूल्य / Estimated Bid Value	1200000
मूल्यांकन पद्धति/Evaluation Method	Total value wise evaluation
मध्यस्थता खंड/Arbitration Clause	No
सुलह खंड/Mediation Clause	No

**ईएमडी विवरण/EMD Detail**

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईएमडी राशि/EMD Amount	24000

**ईपीबीजी विवरण /ePBG Detail**

एडवाइजरी बैंक/Advisory Bank	State Bank of India
ईपीबीजी प्रतिशत (%) /ePBG Percentage(%)	5.00
ईपीबीजी की आवश्यक अवधि (माह) /Duration of ePBG required (Months).	6

(a). जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित केटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज प्रस्तुत करने हैं। एमएसई केटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।/EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy.

(b).ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए। / EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

**लाभार्थी /Beneficiary :**

AI ENGINEERING SERVICES LIMITED

<https://forms.eduqfix.com/aiengineering/add?formType=8489935188309188> EMD/SECURITY Deposit PAYMENTS MUST BE DONE THROUGH AIESL PAYMENT GATEWAY ONLY THE PAYMENT LINK IS PROVIDED ABOVE OR YOU MAY VISIT OUR WEBSITE @ WWW.AIESL.IN (AI Engineering Services Limited) and scroll to the bottom of the homepage to locate the Payments link. This will redirect you to the Qfix Payment Gateway. Select the "Vendor" option from the dropdown menu, choose the appropriate Payment Type for EMD, and fill in all the mandatory fields, including the EMD amount in Rupees.

(Ai Engineering Services Limited)

बोली विभाजन लागू नहीं किया गया/ Bid splitting not applied.

**एमआईआई खरीद वरीयता / MII Purchase Preference**

एमआईआई खरीद वरीयता / MII Purchase Preference	Yes
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मेक इन इंडिया विक्रेताओं को खरीद में प्राथमिकता, यदि उनका मूल्य L1+X% तक की सीमा में है / Purchase Preference to MII sellers available upto price within L1+X%	20
मेक इन इंडिया खरीद में प्राथमिकता के लिए बिड की मात्रा का अधिकतम प्रतिशत / Maximum Percentage of Bid quantity for MII purchase preference	50
सार्वजनिक खरीद (मेक-इन-इंडिया को प्राथमिकता) आदेश 2017 के अनुसार केवल क्लास 1/क्लास 2 के स्थानीय आपूर्तिकर्ताओं को ही भागीदारी की अनुमति है दिनांक 16.09.2020 (समय-समय पर संशोधित एवं लागू) / Allow participation only from Class 1/Class 2 local suppliers as per the Public procurement(Preference to Make-in-india) order 2017 date 16.09.2020(as amended and applicable time to time)	Yes, in compliance with the MII ORDER : DPIIT Order(as amended and applicable time to time)

#### एमएसई खरीद वरीयता/MSE Purchase Preference

एमएसई खरीद वरीयता/MSE Purchase Preference	Yes
सूक्ष्म और लघु उद्यम मूल उपकरण निर्माताओं को खरीद में प्राथमिकता, यदि उनका मूल्य L1+X% तक की सीमा में हो / Purchase Preference to MSE OEMs available upto price within L1+X%	15
सूक्ष्म और लघु उद्यम को खरीद में प्राथमिकता के लिए बिड की मात्रा का अधिकतम प्रतिशत / Maximum Percentage of Bid quantity for MSE purchase preference	25

1. If the bidder is a Micro or Small Enterprise (MSE) as per latest orders issued by Ministry of MSME, the bidder shall be relaxed from the eligibility criteria of "Bidder Turnover" as defined above subject to meeting of quality and technical specifications. If the bidder itself is MSE OEM of the offered products, it would be relaxed from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. The bidder seeking Relaxation from Turnover, shall upload the supporting documents to prove his eligibility for Relaxation.
2. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
3. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM of the product offered in the bid {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts and delivery acceptance certificates like CRAC to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.
4. OEM Turn Over Criteria: The minimum average annual financial turnover of the OEM of the offered product during the last three years, ending on 31st March of the previous financial year, should be as indicated in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the OEM is less than 3 year old,

the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

5. Preference to Make In India products (For bids < 200 Crore):Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023.

[OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

6. Purchase preference will be given to MSEs having valid Udyam Registration and whose credentials are validated online through Udyam Registration portal as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail themselves of the Purchase preference, the bidder must be the manufacturer / OEM of the offered product on GeM. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises and hence resellers offering products manufactured by some other OEM are not eligible for any purchase preference. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service and Buyer will decide eligibility for purchase preference based on documentary evidence submitted, while evaluating the bid. If L-1 is not an MSE and MSE Seller (s) has / have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such MSE Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total quantity. The buyers are advised to refer the OM No. F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017. Benefits of MSE will be allowed only if seller is validated on-line in GeM profile as well as validated and approved by Buyer after evaluation of documents submitted.

7. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.

8. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 10% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

#### Pre Bid Detail(s)

मूल्य भिन्नता खंड दस्तावेज़/Pre-Bid Date and Time	प्री-बिड स्थान/Pre-Bid Venue

13-04-2026 11:00:00	<p>FOR OFFLINE PRE BID MEETING AI Engineering Services Ltd. (AIESL), NEW ENGINEERING HANGAR INTEGRATED SERVICE COMPLEX, MEENAMBAKKAM, CHENNAI -600016</p> <p>FOR ONLINE PRE BID MEETING PatakotiBalaMurali Krishna has invited you to join an online meeting.</p> <p>Title: Supply, Delivery, Installation, Testing, and Commissioning of Aircraft Engine Water Wash Rig complete with all accessories at MRO Hangar, Chennai International Airport (MAA). Time: Mon, Apr 13, 2026 11:00 AM (Asia/Kolkata) Duration: 2 hrs</p> <p>Meeting link: <a href="https://meet.mgovcloud.in/LLJDWy6w8U">https://meet.mgovcloud.in/LLJDWy6w8U</a></p> <p>Meeting ID: 1866497030 Password: dmuwwe</p>
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### Supply Of Nitrogen-Boosted Aircraft Engine Water Wash Rig Complete Unit

(क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक/Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively)

#### तकनीकी विशिष्टियाँ /Technical Specifications

<b>Specification Document</b>	<a href="#">View File</a>
<b>BOQ Detail Document</b>	<a href="#">View File</a>

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

#### परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Bala Murali Krishna Patakoti	501218,AI Engineering services limited , Shamashabad ,Hydrabad , Telngana Pin Code 5001218	1	60

### Installation, Commissioning Charges

(क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक/Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively)

#### तकनीकी विशिष्टियाँ /Technical Specifications

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**परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity**

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Bala Murali Krishna Patakoti	501218,AI Engineering services limited , Shamashabad ,Hydrabad , Telngana Pin Code 5001218	1	60

**Training Charges**

(क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक/Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively)

**तकनीकी विशिष्टियाँ /Technical Specifications**

<b>Specification Document</b>	<a href="#">View File</a>
<b>BOQ Detail Document</b>	<a href="#">View File</a>

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

**परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity**

क्र.सं./S.No.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Bala Murali Krishna Patakoti	501218,AI Engineering services limited , Shamashabad ,Hydrabad , Telngana Pin Code 5001218	1	60

**Spares**

(क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक/Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively)

## तकनीकी विशिष्टियाँ /Technical Specifications

<b>Specification Document</b>	<a href="#">View File</a>
<b>BOQ Detail Document</b>	<a href="#">View File</a>

Advisory-Please refer attached BOQ document for detailed consignee list and delivery period.

## परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Bala Murali Krishna Patakoti	501218,AI Engineering services limited , Shamashabad ,Hydrabad , Telngana Pin Code 5001218	1	60

## Delivery

(क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक/Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively)

## तकनीकी विशिष्टियाँ /Technical Specifications

<b>Specification Document</b>	<a href="#">View File</a>
<b>BOQ Detail Document</b>	<a href="#">View File</a>

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## परेषिती/रिपोर्टिंग अधिकारी तथा मात्रा/Consignees/Reporting Officer and Quantity

क्र.सं./S.N o.	परेषिती/रिपोर्टिंग अधिकारी /Consignee Reporting/Officer	पता/Address	मात्रा /Quantity	डिलीवरी के दिन/Delivery Days
1	Bala Murali Krishna Patakoti	501218,AI Engineering services limited , Shamashabad ,Hydrabad , Telngana Pin Code 5001218	1	60

## क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें/**Buyer Added Bid Specific Terms and Conditions**

### 1. **Generic**

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity up to 25% of the contracted quantity during the currency of the contract at the contracted rates. The delivery period of quantity shall commence from the last date of original delivery order and in cases where option clause is exercised during the extended delivery period the additional time shall commence from the last date of extended delivery period. The additional delivery time shall be  $(\text{Increased quantity} \div \text{Original quantity}) \times \text{Original delivery period (in days)}$ , subject to minimum of 30 days. If the original delivery period is less than 30 days, the additional time equals the original delivery period. The Purchaser may extend this calculated delivery duration up to the original delivery period while exercising the option clause. Bidders must comply with these terms.

### 2. **Generic**

After award of contract – Successful Bidder shall have to get Detailed Design Drawings approved from buyer before starting fabrication. Successful Bidder shall submit Detailed Design Drawings for Buyer's approval, within 5 days of award of contract. Buyer shall, either approve the drawings or will provide complete list of modification required in the drawings within 5 days. Seller shall be required to ensure supply as per approved Drawings with modifications as communicated by Buyer. If there is delay from buyer side in approval of drawing– the delivery period shall be refixed without LD for the period of delay in approval of Drawing.

### 3. **Generic**

Actual delivery (and Installation & Commissioning (if covered in scope of supply)) is to be done at following address

AI ENGINEERING SERVICES LIMITED  
NEW ENGINEERING HANGAR  
INTEGRATED SERVICE COMPLEX  
MEENAMBAKKAM, CHENNAI  
6 0 0 0 1 6

### 4. **Generic**

**Bidder financial standing:** The bidder should not be under liquidation, court receivership or similar proceedings, should not be bankrupt. Bidder to upload undertaking to this effect with bid.

### 5. **Generic**

Bidders shall quote only those products (Part of Service delivery) in the bid which are not obsolete in the market and has at least 5 years residual market life i.e. the offered product shall not be declared end-of-life by the OEM before this period.

### 6. **Generic**

Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.

### 7. **Generic**

Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Buyers can match and verify the Data Sheet with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.

### 8. **Generic**

Experience Criteria: The Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU for 3 years before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the year. In case of bunch bids, the primary product having highest value should meet this criterion.

9. **Generic**

Installation, Commissioning, Testing, Configuration, Training (if any - which ever is applicable as per scope of supply) is to be carried out by OEM / OEM Certified resource or OEM authorised Reseller.

10. **Generic**

Scope of supply includes Training: Number of employees to be trained

4

, Place for Training

AI ENGINEERING SERVICES LIMITED, CHENNAI

and Duration of training

4

days.

11. **Generic**

The successful bidder has to supply all essential accessories required for the successful installation and commissioning of the goods supplied. Besides standard accessories as per normal industry practice, following accessories must be part of supply and cost should be included in bid price:

ESSENTIAL ACCESSORIES

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12. **Buyer Added Bid Specific ATC**

Buyer Added text based ATC clauses

A SIGNED COPY OF TENDER DOCUMENT (AIESL/HYD/PPMM/ENQ/01 Dated 02/04/2026) TO BE SUBMITTED ALONG WITH THE BID.

**Work Scope**

These Technical specifications define the mandatory minimum requirements for the design, manufacture, supply, testing, inspection, installation, commissioning, training, and documentation of Nitrogen-Boosted Aircraft Engine Water Wash Rig One (1) No. at MRO Hangar, Chennai International Airport (MAA), for use by the Engineering Department, Air India Engineering Services Limited (AIESL).

**Scope of Supply**

The complete scope shall include, but not be limited to:

- One (1) No. Water Wash Rig complete with all components and accessories as specified herein
- High-pressure hose assembly ( $\geq 20$  m) with couplings and spray nozzle set compatible with aircraft wash manifolds
- Safety Relief Valve (SRV) – pre-set, certified, and tested
- In-line filtration system ( $\leq 50$  micron)
- Digital temperature indicator with calibration certificate
- Hose reel (frame-mounted, retractable)
- All fasteners, fittings, seals, and commissioning consumables
- Tools, special tools, and testing equipment required for commissioning
- O&M Manuals, As-Built Drawings, and all documentation per Section 6
- Hands-on operator training for minimum 4 (four) AIESL personnel
- Any statutory fees for inspection, dispatch clearance, or third-party certification.

**Primary Application**

The Rig shall be suitable for water servicing operations on the following aircraft types:

Airbus A-330 (All variants)  
 Boeing B-737 MAX (All variants)  
 Boeing B-737 (Classic and NG variants)  
 Boeing B-777 (All variants)

### **Operating Environment**

<b>Location of Use</b>	Apron / Tarmac / Aircraft Maintenance Hangar
<b>Ambient Temperature Range</b>	0°C to +55°C
<b>Humidity</b>	Up to 95% Relative Humidity (Non-condensing)
<b>Altitude</b>	Up to 900 m above Mean Sea Level (MSL)
<b>Operating Terrain</b>	Level airport apron surface, asphalt/concrete

### **Primary Function**

The Water Wash Rig shall be capable of delivering temperature-controlled, filtered, pressurised water to the compressor inlet of commercial aircraft engines for the purpose of:

- Supply of potable water to aircraft potable water systems under controlled pressure.
- Storage of potable water in dual stainless-steel tanks with individual lid access.
- Heating of stored water to a user-defined temperature for cold-weather operations.
- Nitrogen-boosted pressure delivery ensuring consistent water flow at required system pressure.
- Safe pressure relief and automatic cut-off to prevent system overpressure.

### **Performance Parameters**

<b>S.No.</b>	<b>Parameter</b>	<b>Specification / Requirement</b>
<b>1</b>	Tank Capacity (Each)	125 Litres ± 2%
<b>2</b>	Number of Tanks	2 Nos. (Total 250 Litres)
<b>3</b>	Pressure System Type	Nitrogen-Boosted (N2 Pressurised)

<b>4</b>	Max. Operating Pressure - Narrow Body (NB)	80 PSI (5.5 BAR) ± 5%
<b>5</b>	Max. Operating Pressure - Wide Body (WB)	110 PSI (9.2 BAR) ± 5%
<b>6</b>	Safety Relief Valve Cut-off Pressure	Max. 10 kg/cm <sup>2</sup> (settable as per requirement)
<b>7</b>	Water Heater Capacity	Capable of heating 250 Litres simultaneously
<b>8</b>	Water Temperature Range (Heater)	Ambient to 80°C (adjustable via control panel)
<b>9</b>	Hose Working Pressure Rating	Minimum 1.5x Maximum Operating Pressure
<b>10</b>	Filtration	SS In-line Filter (mesh specification per design)

### **Operational Requirements**

- The equipment shall be fully operable on the apron/hangar floor without external power extension beyond 25 m
- All electrical controls shall be accessible from one operator position with clear labelling in English
- The rig shall incorporate a single E-Stop mushroom button that cuts power to the pump motor within 2 seconds of actuation
- The equipment shall operate reliably in tropical coastal conditions (ambient 20°C–48°C, relative humidity up to 95%)
- Start-up to operational pressure: ≤ 5 minutes from cold condition
- Material compatibility: All wetted parts shall be compatible with demineralised (DM) water and approved engine wash fluids per OEM data sheets

### **Capacity / Throughput**

- Tank capacity per tank: 125 L (min.); total system capacity: ≥ 250 L
- Duty cycle: Continuous operation for minimum 45 minutes without interruption for a typical engine wash cycle
- System shall allow refilling of one tank while the other is in use (dual-tank operational design)

### **Detailed Technical Specifications**

All parameters listed in the table below are MINIMUM requirements. Bids not meeting any single parameter will be technically disqualified.

### **Tank Specifications**

<b>Material of Construction</b>	Stainless Steel Grade SS 304 conforming to ASTM A240 / AISI 304
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<b>No. of Tanks</b>	2 (Two) Nos.
<b>Individual Capacity</b>	125 Litres (nominal) each
<b>Tank Lid</b>	Openable type with quick-release / swing-bolt mechanism ; gasket-sealed
<b>Surface Finish (Internal)</b>	Electro-polished / Passivated to food-grade standard
<b>Surface Finish (External)</b>	Brushed / Bead-blasted or equivalent
<b>Tank Pressure Rating</b>	Designed for minimum 1.5 × Max. WP (165 PSI / 11.4 BAR )
<b>Drain Provision</b>	Bottom drain valve (SS 304) with cap on each tank
<b>Tank Supports / Mounting</b>	Welded SS bracket frame, bolted to trolley chassis

### **Pressure System**

<b>Boost Medium</b>	Nitrogen (N2) - inert, dry, industrial / medical grade
<b>N2 Inlet Connection</b>	Standard CGA 580 / BS 341 male fitting with check valve
<b>Pressure Regulator</b>	Two-stage SS body regulator with gauge, 0-200 PSI scale
<b>Safety Relief Valve (SRV)</b>	Spring-loaded, SS seat, auto-reseat; calibrated at $\leq 10 \text{ kg/cm}^2$
<b>Pressure Gauges</b>	Bourdon tube, glycerine-filled, SS Bourdon, 0-200 PSI; Min. 63mm dial
<b>Isolation Valves</b>	SS 316 ball valves with locking provision at each tank outlet
<b>Non-Return / Check Valve</b>	SS 316, spring-loaded at each tank to prevent back-flow

## **Water Heater Specifications**

<b>Type</b>	Electric immersion heater (SS sheathed element) or external heater jacket
<b>Heating Capacity</b>	Minimum to heat 250 Litres from 10°C to 60°C within 60 minutes at 240V AC
<b>Power Supply</b>	220-240V AC, 50 Hz, Single Phase (Standard Indian supply)
<b>Heater Element Material</b>	Incoloy 800 / SS 316 sheathed
<b>Thermostat</b>	Bimetallic / electronic with adjustable set-point (0°C - 80°C)
<b>High-Limit Thermostat / Thermal Cut-out</b>	Auto trip at 85°C; manual reset
<b>Earthing / Leakage Protection</b>	Equipment earthed; ELCB/RCD of $\leq 30$ mA sensitivity provided
<b>IP Rating of Electrical Components</b>	Minimum IP 55 (Protected against dust and water jets)

## **Control Panel**

<b>Panel Enclosure</b>	SS 304 / powder-coated MS; IP 55 minimum
<b>Controls Provided</b>	Main ON/OFF switch, Heater ON/OFF switch, Emergency stop (red mushroom)
<b>Temperature Indication</b>	Digital temperature indicator / controller (PT-100 or thermocouple type)
<b>Indicating Lamps</b>	Power ON indicator (Green), Heater ON indicator (Amber)
<b>Cable Inlet</b>	Industrial gland fittings; cables min. 3-core copper, 2.5 mm <sup>2</sup> (heat-resistant)

## **Trolley / Chassis Specifications**

<b>Frame Material</b>	Mild Steel (IS 2062 Gr. E250) / Structural Steel, hot-dip galvanized or epoxy-painted
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<b>Wheels / Tyres</b>	Pneumatic air-filled tyres (minimum 4 Nos.); suitable for a pron surface
<b>Wheel Diameter (approx .)</b>	Minimum 200 mm diameter
<b>Brake System</b>	Mechanical foot-operated brakes on minimum 2 wheels; with wheel chocks provided
<b>Towing Handle</b>	Heavy-duty ergonomic tow bar with superior grip; swivel / turntable arrangement
<b>Turn Table (King Pin)</b>	360° swivel for easy manoeuvring around aircraft
<b>Overall Height (approx.)</b>	≤ 1500 mm (to ensure compatibility under aircraft service panels)
<b>Colour / Finish</b>	High-visibility Yellow (RAL 1003) or as per purchaser's requirement; 2-coat epoxy
<b>Tow Hitch</b>	Compatible with standard airport ground support tow vehicle

### Hose Reel & Delivery Hose

<b>Hose Reel Type</b>	Spring-rewind reel or manual crank-type; SS or GI frame
<b>Hose Material</b>	Food-grade EPDM or Nylon-reinforced PVC; potable water approved
<b>Hose Bore</b>	Minimum 19 mm (3/4 inch) ID
<b>Hose Length</b>	Minimum (20 meters)
<b>Hose Pressure Rating</b>	Minimum 200 PSI (burst pressure min. 4x working pressure)
<b>End Fittings</b>	Stainless steel swivel couplings; compatible with aircraft water service ports (A-330/B-737/B-777)

## **Filtration**

<b>Filter Type</b>	In-line Y-strainer or basket filter
<b>Filter Body</b>	Stainless Steel SS 316
<b>Filter Element / Mesh</b>	60 mesh minimum (or as per AHM specification for potable water)
<b>Location</b>	Downstream of tank outlet, upstream of delivery hose
<b>Cleanability</b>	Removable element for cleaning / replacement without breaking pipe joints

## **QUALITY & STANDARDS COMPLIANCE**

<b>S.No.</b>	<b>Standard / Code</b>	<b>Applicability</b>
<b>1</b>	IS 6911 : 1992	Stainless Steel Plates, Sheets & Strips
<b>2</b>	IS 2062 : 2011	Hot Rolled Medium & High Tensile Structural Steel for Trolley Frame
<b>3</b>	IS 1239 : 2004	Mild Steel Tubes, Tubulars & Fittings (Piping)
<b>4</b>	IS 3823 : 1978	Industrial Pressure Gauges
<b>5</b>	IS 15450 : 2004	Safety Relief Valves - General Requirements
<b>6</b>	IS 732 : 2019	Code of Practice for Electrical Wiring Installations (Tropical)
<b>7</b>	IS 13947 : 2014	Low Voltage Switchgear and Control Gear
<b>8</b>	IS 8183 : 1993	Bonded Mineral Wool Slab - thermal insulation (if applicable)
<b>9</b>	IS 1003 : 2002	Timber Door / Window Shutters - not applicable;
<b>10</b>	IS 9431 : 1980	Graphite Packing for Valves (Stem Packing)

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### **Country of Origin & Make-in-India**

- Bidders are encouraged to quote indigenously manufactured equipment complying with the Public Procurement (Preference to Make in India) Order 2017 as amended.
- If equipment is of foreign origin, the bidder shall submit a Country of Origin (COO) certificate from the respective Export Credit Agency (ECA) or Chamber of Commerce.
- In case of Indian Bidder / OEM, MSME certificate (Udyam Registration) shall be submitted for applicable price preference.

### **Manufacturer Eligibility**

- Manufacturer shall have a minimum of 3 (three) years of demonstrated experience in manufacturing hydraulic/pressure equipment or GSE for industrial / aviation applications.
- Manufacturer shall hold a valid ISO 9001:2015 certificate from an IAF-accredited Certification Body (CB) with scope covering design/manufacture of pressure equipment or fluid handling systems.
- Bidder (if trader / system integrator, not OEM) shall submit a Manufacturer's Authorization Certificate (MAC) on the OEM's letterhead, valid for this tender, committing to warranty and service obligations.
- Bidders shall declare the Make, Model, and Country of Manufacture of the offered equipment in the Compliance Statement (Annexure A).

**NOTE:** The specifications are drawn to cover multiple makes/models and are not intended to favour any single manufacturer. Any perceived restriction must be raised in writing before the bid submission deadline.

### **Testing & Inspection Requirements : Bidder's Responsibility -**

**AIESL reserves the right to nominate its representative or a third-party inspection agency for witnessing the FAT at the bidder's cost**

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<b>S.No.</b>	<b>Test Description</b>	<b>Acceptance Criteria</b>
<b>1</b>	Hydrostatic Pressure Test (Tanks)	1.5 × Max. Working Pressure for 30 min - No leak/deformation
<b>2</b>	Pneumatic Leak Test (Pressure circuit)	Apply N2 at 1.1 × Max. WP; soap solution check - No leak
<b>3</b>	Safety Relief Valve (SRV) Set-Pressure Test	SRV to open at ≤ 10 kg/cm <sup>2</sup> and reseal; calibration certificate
<b>4</b>	Pressure Gauge Calibration	Against NABL-accredited master; within ± 2% of FSD
<b>5</b>	Heater Performance Test	Heat 250 L from 10°C to 60°C - verify within specified time

<b>6</b>	Thermostat & Thermal Cut-out Test	Temperature cut-out trips at set temp; manual reset confirmed
<b>7</b>	Electrical Insulation Test (Megger)	Min. 1 MΩ between live parts and earth at 500V DC
<b>8</b>	ELCB / RCD Trip Test	Trips at ≤ 30 mA leakage current
<b>9</b>	Functional / Operational Test	Full operation cycle simulating aircraft servicing; no anomaly
<b>10</b>	Brake & Mobility Test	Brakes hold on 5° incline; tyres inflated to recommended pressure
<b>11</b>	Dimensional Verification	All critical dimensions per approved drawing
<b>12</b>	Dismantling & Reassembly Trial	Key sub-assemblies dismantled and reassembled - demonstrate ease

### **Third-Party Inspection**

- A NABL-accredited / BIS-approved Third-Party Inspection Agency shall be engaged for witnessing FAT at the Supplier's works.
- TPI charges shall be borne by the bidder.
- The Supplier shall provide a minimum of 10 days' advance notice for FAT readiness.
- All test reports, calibration certificates, and material test certificates shall be submitted in triplicate in hard copy and electronic (PDF) format.

### **Inspection at Site – Pre-Delivery**

After installation and commissioning at the purchaser's site, the following checks shall be conducted jointly by the Supplier and Purchaser:

- Repeat leak test of pressure circuit at site conditions.
- Full functional demonstration on representative aircraft type (or ground simulator).
- Verification of water heater operation under local electrical supply conditions.
- Confirmation of SRV operation and pressure gauge calibration.
- Training of operating and maintenance staff (Refer Section 8).

### **WARRANTY & AFTER-SALES SUPPORT**

<b>Warranty Period</b>	Minimum 24 months from date of commissioning OR 30 months from date of dispatch, whichever is earlier
<b>Warranty Coverage</b>	All defects in design, material, workmanship, and manufacturing under normal use
<b>On-Site Response Time</b>	Within 48 hours of complaint registration for on-site defects
<b>Replacement of Defective Parts</b>	At Supplier's cost including freight and installation during warranty period
<b>Consumables Excluded</b>	Wear parts (gaskets, O-rings, hose, filter elements ) if consumed in normal operation are excluded from warranty unless found defective

### **Spare Parts**

- Bidder shall provide a Recommended Spare Parts List (RSPL) for 3 years at bid stage.
- Bidder shall guarantee supply of all spare parts for a minimum of 7 (seven) years from date of SAT ( Site Acceptance Test).
- In case of obsolescence, the bidder shall provide a pin-for-pin compatible replacement part with no additional engineering cost to AIESL.
- AIESL may, at its discretion, procure critical spares from the bidder at bid-stage-quoted rates (price escalation capped at WPI index, annually).

### **Training**

- Minimum 4 hours of hands-on operational and basic maintenance training for minimum 4 AIESL Engineering personnel to be provided during commissioning, at no additional cost.
- Training shall cover: equipment operation, start-up/shutdown procedure, routine maintenance, filter change, pressure calibration, and emergency shutdown.
- Bidder to provide a Training Completion Certificate signed by the Bidder's training engineer and AIESL's nominated officer.

### **Installation & Commissioning**

- The Supplier shall depute a qualified service engineer for installation, commissioning, and SAT at the Purchaser's site.
- Installation charges, travel, and accommodation for the Supplier's engineer shall be at the Supplier's cost for the commissioning visit.
- The Purchaser shall provide a dry, level area with access to 220-240V AC, 50 Hz, 15A electrical supply for commissioning.
- Purchaser shall arrange for an N2 cylinder (minimum 50 L, 200 BAR) for commissioning; ongoing N2 supply is the Purchaser's responsibility.

### **Maintainability & Repairability**

- The Rig shall be designed for easy dismantling and reassembly in field conditions with standard hand tools.

- All consumable parts (gaskets, O-rings, filter elements, hose, SRV, pressure gauges) shall be commercially available indigenous items.
- The estimated annual maintenance cost shall be low; the Supplier shall provide a 5-year life-cycle cost estimate.
- Modular design is preferred so that individual sub-assemblies (tank, heater, pressure circuit) can be replaced independently.

### 13. Buyer Added Bid Specific ATC

Buyer uploaded ATC document [Click here to view the file.](#)

### अस्वीकरण/Disclaimer

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.
15. Buyer added ATC Clauses which are in contravention of clauses defined by buyer in system generated bid template as indicated above in the Bid Details section, EMD Detail, ePBG Detail and MII and MSE Purchase Preference sections of the bid, unless otherwise allowed by GeM GTC.
16. In a category based bid, adding additional items, through buyer added additional scope of work/ additional terms and conditions/or any other document. If buyer needs more items along with the main item, the same must be added through bunching category based items or by bunching custom catalogs or bunching a BoQ with the main category based item, the same must not be done through ATC or Scope of Work.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

**All GeM Sellers/Service Providers shall ensure full compliance with all applicable labour laws, including the provisions, rules, schemes and guidelines under the four Labour Codes i.e. the Code on Wages, 2019; the Industrial Relations Code, 2020; the Occupational Safety, Health and Working Conditions Code, 2020; and the Code on Social Security, 2020 as and when notified and brought into force by the Government of India.**

**For all provisions of the Labour Codes that are pending operationalisation through rules, schemes or notifications, the corresponding provisions of the pre-existing labour enactments (such as The Minimum Wages Act, 1948, The Payment of Wages Act, 1936, The Payment of Bonus Act, 1965, The Equal Remuneration Act, 1976, The Payment of Gratuity Act, 1972, etc. and relevant State Rules) shall continue to remain applicable.**

**The Seller/ Service Providers shall, therefore, be responsible for ensuring compliance under:**

- **All notified and enforceable provisions of the new Labour Codes as mentioned hereinabove; and**
- **All operative provisions of the erstwhile Labour Laws until their complete substitution.**

**All obligations relating to wages, social security, safety, working conditions, industrial relations etc. and any other statutory requirements shall be strictly met by the Seller/ Service Provider. Any non-compliance shall constitute a breach of the contract and shall entitle the Buyer to take appropriate action in accordance with the contract and applicable law.**

[यह बिड सामान्य शर्तों के अंतर्गत भी शासित है /This Bid is also governed by the General Terms and Conditions](#)

जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।/In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

**---धन्यवाद/Thank You---**