



**DELHI AVIATION FUEL FACILITY PRIVATE LIMITED**

**DELHI AVIATION FUEL FACILITY PRIVATE LIMITED  
AVIATION FUELLING STATION  
SHAHBHAD MOHAMMADPUR  
IGI AIRPORT  
NEW DELHI-110061**



TENDER NO: DAFFPL/FF/2021-22/04

INVITING TENDER FOR  
SUPPLY OF MICRO FILTERS AND FILTER WATER SEPARATORS

BID DUE DATE & TIME: 1500 Hrs. IST on 09<sup>th</sup> November 2021

OPENING OF TECHNICAL BIDS: 1100 Hrs. IST on 10<sup>th</sup> November 2021



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PRICE BID FORMAT

NOTE: BIDDERS ARE REQUESTED TO SIGN AND STAMP ALL THE PAGES OF THE TENDER DOCUMENT AND SEND THE SAME BACK IN THEIR OFFER AS A TOKEN OF UNCONDITIONAL ACCEPTANCE OF TENDER TERMS.

THE DEVIATIONS, IF ANY, SHOULD BE MENTIONED SEPARATELY ON BIDDER’S LETTER HEAD IN TECHNICAL BID. THE DEVIATIONS MENTIONED ANYWHERE ELSE SHALL NOT BE CONSIDERED. IN ABSENCE OF DEVIATION SHEET, IT WOULD BE CONCLUDED THAT BIDDER HAS ACCEPTED THE TENDER TERMS WITHOUT ANY DEVIATIONS. CORRECTIONS IN TENDER DOCUMENT WILL NOT BE ACCEPTED.



# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## TENDER NOTICE DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

### INVITING TENDER FOR SUPPLY OF MICRO FILTERS AND FILTER WATER SEPARATOR AS PER SPECIFICATIONS

**TENDER NO: DAFFPL/FF/2021-22/04**

**Delhi Aviation Fuel Facility (P) Ltd (DAFFPL)** invites bids from eligible bidders for supply of Filter Water Separators and Micro Filters.

**Brief Scope of work:**

We intend to procure Micro Filters and Filter Water Separators complete as per specifications.

Bid Security (EMD):	As mentioned in the Tender document
Date, Time & Venue for Voluntary Pre-bid Meeting:	18 <sup>th</sup> October 2021; 1500 HRS (IST) at DAFFPL, Aviation Fueling Station, Shahabad Mohammadpur, New Delhi-110061
Last Date of Submission of Queries	Upto 18:00 HRS (IST) on 21 <sup>st</sup> October 2021.
Bid Due Date, Time & Place of Submission:	Upto 15:00 HRS (IST) on 09 <sup>th</sup> November 2021, at e-Tendering Portal of DAFFPL.

Detailed Invitation for Bids (IFB) along with Pre-qualification Criteria, Bid Document Corrigenda can be viewed and downloaded from DAFFPL's website:

<http://daffpl.enivida.com>

**Chief Executive Officer**

DAFFPL, New Delhi



# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## CHAPTER 1: INTRODUCTION (COVERING NOTE)

**Delhi Aviation Fuel Facility Private Limited (DAFFPL)** is a Joint Venture comprising Indian Oil Corporation Ltd. (IOCL), Bharat Petroleum Corporation Ltd. (BPCL), and Delhi International Airport (P.) Ltd. (DIAL). We provide the infrastructure aimed at ensuring an uninterrupted flow of Aviation Turbine Fuel (ATF) to all type of aircrafts at the Indira Gandhi International Airport, New Delhi (IGI Airport) as per international benchmarking.

The bidder/ contractor shall refer to various sections of this tender document for detailed scope of work. It is contractor's/ bidder's responsibility to execute the job in all respects as per specification furnished by consultant / owner and as per applicable codes, standards & in line with statutory requirements.

The field circumstances shall also be taken into consideration and methods suitable to the site conditions shall be adopted with concurrence of the Engineer-in-charge and in line with manuals, instructions of respective equipment and specified codes and standards. The successful accomplishment of the project is greatly influenced by the teamwork, workmanship of the workers and supervisors.

The Contractor/Bidder shall employ only such workers and supervisors who have considerable experience of similar work and who can work, temperamentally in good harmony and co-operation.

**Delhi Aviation Fuel Facility Private Limited (DAFFPL)** invites tenders in prescribed tender form under two-bid system. For viewing details including EMD, BID QUALIFICATION CRITERIA etc. please visit our e-Tendering web site <http://daffpl.enivida.com>

The bids are to be submitted on the e-Tendering portal of **Delhi Aviation Fuel Facility Private Limited (DAFFPL)**.



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1. The Tender is floated in Two Bid system consisting of Technical Bids (Bid Qualification Criteria - BQC, Technical plus Commercial) and Price Bids.

Part-I : Bid Security / EMD in accordance with tender document.  
Part-II : BQC (Bid qualification criteria), Technical & commercial Bid, duly filled in & along with all supporting as requested to be submitted/uploaded on DAFFPL e-tendering portal.  
Tender Box.  
Part -III : Price Bid.

2. The bidder should be able to construct the entire size/type/quantity bid by them. Bidders cannot bid for part items or part quantity.
3. Firstly, the technical bid (BQC & Techno commercial bids) shall be opened. The Bids shall be initially scrutinized by a team as per tender requirements of BQC (Bid qualification criteria). Technical cum commercial bids of only those vendors who qualify the BQC will be processed further. The price bids of only techno-commercially qualified bidders will be opened, evaluated and shortlisted for Placement of Work Order.
4. The bids submitted should be valid for **four months** from the due date of bid submission for Owner's acceptance. Once accepted it will remain firm till completion of contracts/orders.
5. We request the bidder to carefully go through all tender documents before submitting the offer. Please note that any exceptions or deviations to the tender document are necessarily to be recorded in the attached deviation statement only. Any exceptions/deviations brought out elsewhere in the bid shall not be considered.
6. The bidders may be invited for a presentation to DAFFPL during Techno-commercial evaluation before price bid opening.
7. The bidders to provide their bank details/ PAN / Goods & Service Tax Registration No. / VAT registration No., as applicable for updating vendor master file. You are also requested to keep us informed of any change in address / status of your business / contact details including email address etc.
8. Party can quote with the deviations as referred in Point No.5 above. Please refer query end date / time in tender calendar after which no query posted by bidder shall be considered. However, DAFFPL reserves the right to respond the queries after cutoff date / time mentioned in tender calendar.



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9. Please note that queries related to scope of job, tender specifications, terms & conditions etc., should be submitted on e-tender portal before the query closing date. Any modification in the bid document that may become necessary as a result of the Pre-Bid meeting shall be made by the owner exclusively through the issues of corrigendum/ addendum posted at e-tender portal.

### 10. UNSOLICITED POST BID MODIFICATION

Bidders are advised to quote strictly as per terms and conditions of the Bidding Document. After tender submission due date & time/ extended due date & time (as the case may be) the bidders shall not make any subsequent price changes, whether resulting or arising out of any technical / commercial clarifications sought/allowed on any deviations or exceptions mentioned in the bid.

11. EMD & Techno Commercial bid shall be opened on or after the date mentioned on tender opening date on e-tender portal. Price Bid of only those bidders whose offer is found meeting both BQC & techno-commercially acceptable, shall be opened on a later date as decided by DAFFPL.

12. DAFFPL reserves the right to accept any one or more tender in whole or in part or reject any or all tenders without assigning any reason. DAFFPL reserves right to accept any or more tenders in part. Decision of DAFFPL in this regard shall be final and binding on the bidder.

QUERIES AND CLARIFICATIONS: Any query or clarification with regard to this tender may please be referred to below address & phone nos. on any working day during office working hours.

Mr. Ajay Singh, Asst. Manager Projects, <a href="mailto:ajay.singh@daffpl.in">ajay.singh@daffpl.in</a> , 9999946309,	Mr. Manish Kumar Project Officer <a href="mailto:manish.kumar@daffpl.in">manish.kumar@daffpl.in</a> , 9810640818	<a href="mailto:vishvajit@daffpl.in">vishvajit@daffpl.in</a>
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13. GOVERNING LAWS: The laws of Union of India shall govern all matters concerning the tender. Any issue arising related to the tender, or the selection process shall be adjudged by the courts in Delhi alone.

14. A Pre-bid meeting shall be conducted is scheduled for **18<sup>th</sup> October 2021 at 1500 Hrs IST** at the office of DAFFPL, New Delhi. All prospective bidders can participate in the same. Any clarification regarding tender shall be sorted out during the pre-bid meeting.

a. The purpose of the pre-bid meeting is to clarify any doubts of the



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BIDDER on the interpretation of the provisions of tender.

- b. Bidder(s) are requested to submit their queries, mentioning form name, clause no. & clause as per schedule in order to have fruitful discussions during the meeting.
- c. All the Bidder(s) are requested to attend the pre-bid meeting to be held at DAFFPL Office as per schedule.

**15. Earnest Money Deposit (EMD) (also referred to as Bid Security):** Bidder shall be required to submit the Earnest Money Deposit (EMD), either in the form of Bank guarantee as per format (provided as Annexure) or bank transfer (IMPS/RTGS) in favor of Delhi Aviation Fuel Facility Private Limited. The EMD in either form has to be submitted on or before the due date & due time of bid submission of this tender with a covering note mentioning the tender no.

Direct bank transfer for Tender Fee and Earnest Money Deposit to DAFFPL account as detailed below. The UTR Reference and date shall be provided in the Tender portal for DAFFPL verification.

Name of Account	DELHI AVIATION FUEL FACILITY PRIVATE LTD.
Account No.	39040531887
Name of Branch	Corporate Accounts Group-II Branch, New Delhi
IFSC Code	SBIN0017313
SWIFT	SBININBB824
MICR	110002562
PAN	AAACS8577K
TAN	DELS55939C
BSR	0017313

- a. The bidders not submitting EMD by due time & date shall be rejected & their bids shall not be evaluated further.
- b. **The EMD amount shall be 1.0 (One) Lakh INR**
- c. Firms registered with National Small-Scale Industries (NSIC)/MSME of India are exempted from submission of EMD/bid security. Central Public Sector Enterprises of India and Firms registered with Nation Small Scale Industries Corporation (NSIC) of India are exempted from submission of EMD/Bid Security. Central Public Sector Enterprises are requested to give a self-declaration on their letter head to this effect. Bidders registered with NSIC of India are also requested to submit self-declaration on their letter head to this effect along with a copy of their Valid Registration certificate.



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16. **Delivery Period:** Time is the essence of the contract. The total order quantity (02 Nos) of Micro Filters & (02 Nos) of Filter Water Separators should be delivered within **06 (Six) months** from the date of Letter of Intent/notification of award. Delivery period shall be counted from the date of notification of award (Letter/Fax/e-mail of Intent) up to the date of receipts of Filter Water Separators (02 Nos) & Micro Filters (02 Nos) long with all accessories at DAFFPL Fuel Farm, New Delhi.
17. The contractual delivery period of 06 months is inclusive of all the lead time for procurement of raw materials, the manufacturing, inspection / testing, packing or any other activity whatsoever required to be accomplished for effecting the delivery at the required delivery point.

### THE FORMS /ATTACHMENTS TO THIS TENDER ARE AS UNDER:

1. Covering Note – CHAPTER: 1
2. Instructions To Bidders - CHAPTER: 2
3. Bid-Qualification Criteria - CHAPTER: 3
4. Performance of Work – CHAPTER: 4
5. Scope of Work- CHAPTER: 5
6. General Purchase Conditions- CHAPTER: 6
7. Technical Specifications/Material Requisition Documents - (Attached as Annexure I)
8. Annexure attached are as follows:
  - Annexure II – DEVIATION SHEET
  - Annexure III – DECLARATION SHEET
  - Annexure IV – FORMAT FOR DRAFT BANK GUARANTEE IN LIEU OF BID SECURITY (EMD)
  - Annexure V - FORMAT DRAFT COMPOSITE BANK GUARANTEE FOR SECURITY DEPOSIT/PERFORMANCE GUARANTEE
  - Annexure VI – FORM OF LETTER OF UNDERTAKING
  - Annexure VII – DECLARATION TO BE SUBMITTED ALONGWITH Technical BID
  - Price Bid

Thanking you,  
Yours faithfully,  
For DELHI AVIATION FUEL FACILITY (P) LTD.  
**Chief Executive Officer**





## CHAPTER 2: INSTRUCTIONS TO BIDDERS

1. The bidder shall bear all costs associated with the preparation and submission of the bid and Owner will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
2. The bidders should have valid class 3 Digital sign certificate with encryption.
3. Bidders are requested to register on our E-Tendering portal on <https://daffpl.enivida.com>
4. Bidder can contact on e-portal helpdesk numbers 011-49606060, 9355030617 during 9:30 hrs to 18:00 hrs for any query/assistance for registration & tender documents submission.
5. Vendor is requested to submit their bids taking full notice of all the technical specifications, terms and conditions, forms & attachments to this tender. Bids must be submitted only through e-Tender portal.
6. Owner reserves the right to accept / reject any or all bid qualification documents at their sole discretion without assigning any reason whatsoever.
7. Owner is not responsible for any delays from bidder end.
8. Owner reserves the right to make any changes in terms and conditions of purchase before due date of bid submission and to reject any or all bids received incomplete.
9. Undertaking by the bidder:
  - a. I/we hereby undertake that the statements made herein/information given in the bids through e-Tendering system/annexure/forms referred are true in all respects and that in the event of any such statement or information being found to be incorrect in any particular, the same may be construed to be a misrepresentation entitling DAFFPL to avoid any resultant contract.
  - b. I/we further undertake as and when called upon by DAFFPL to produce, for its inspection, original(s) of the document(s) of which copies have been annexed hereto.



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10. Owner, at its discretion reserves the right to verify information submitted by the bidders.
11. Bidder to submit documents/information to satisfy the bid qualification criteria. Bidders should also be able to produce further information as and when required by DAFFPL with in a time limit as specified by DAFFPL.
12. DAFFPL reserves their right to negotiate the quoted prices with lowest bidder.
13. Bidders would be qualified based on data and documents submitted by them.
14. Owner's decision on any matter regarding short listing of vendors shall be final and no corresponding in this regard will be entertained.
15. The vendors who are on IOCL/BPCL/DIAL holiday list or delisted will not be considered.
16. The bidder is expected to examine all instructions, forms, attachments, terms and specifications in the tender document. The entire tender document together with all its attachments thereto, shall be considered to be read, understood and accepted by the bidder, unless deviations are specifically stated seriatim by the bidder. Failure to furnish all information required in the tender document or submission of a bid not substantially responsive to the tender documents in every respect will be at bidder risk and may result in the rejection of his bid. The bidder scope of supplies as specified in the material requisition shall be in strict compliance with the scope detailed therein and in the bid document.
17. Bidders in their own interest shall ensure that they submit their bid, complete in all respects, well within the specified bid due date and time. No relaxation shall be given for delay due to any unforeseen event in submission of bid.
18. At any time prior to the bid due date, we may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bid document. The amendment will be notified through our portal for e-tender to all prospective bidders and will be binding on them. In order to afford prospective bidder, reasonable time in which to take the amendment into account in preparing their bids, we may, at our discretion, extend the bid due date.



19. The bid prepared by the bidder and all correspondence/ drawings and documents relating to the bid exchanged by bidder and the owner shall be written in ENGLISH language, provided that any printed literature furnished by the bidder may be written in another language so long as accompanied by an ENGLISH translation, in which case, for the purpose of interpretation of the bid, the ENGLISH translation shall govern.
20. Declaration with the bid qualification criteria that bidder has not been banned or delisted by any Government or quasi Government agencies or Public Sector Undertaking (PSU) as per declaration format (provided as annexure) of the tender document should be submitted along with the bid.
21. Bidders are advised to submit bids based strictly on the terms & conditions and specifications contained in the tender document and not to stipulate any deviations. Each Bidder shall submit only one bid. A Bidder who submits more than one bid will be rejected. Alternative bids will not be accepted.
22. The Owner may, at its discretion, extend the bid due date, in which case all rights and obligations of the Owner and the Bidders, previously subject to the bid due date, shall thereafter be subject to the new bid due date as extended. The same will be hosted in the e-tendering portal.
23. Bids shall be kept valid for 4 months from the bid due date. A bid valid for a shorter period shall be considered as non-responsive and rejected by the Owner. Notwithstanding above, the Owner may solicit the Bidder consent to an extension of the period of bid validity. The request and the responses thereto shall be made in writing. The EMD (bid security) shall also be accordingly extended.
24. Telex/ Telegraphic/ Telefax / E-mail/Physical offers will not be considered and shall be rejected.
25. No bid shall be modified subsequent to the due date & time or extension, if any, for submission of bids. Bidder(s) to note that Price changes after submission of bid shall not be allowed. In case any bidder gives revised prices/price implication, his bid shall be rejected. No bid shall be allowed to be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder. Withdrawal of a bid during this interval shall result in the forfeiture



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of Bidder s EMD.

26. Bids that do not meet the Bid qualification criteria as specified in the bid document shall be rejected. A bid with incomplete scope of work and/or which does not meet the technical requirements as specified in the bid document, shall be considered as non-responsive and rejected. Conditional bids will be liable for rejection.
27. The Owner will examine the bids to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed and whether the bids are generally in order.
28. The bids without requisite EMD and/or not in the prescribed Performa and the time limit will not be considered and bids of such bidder(s) shall be rejected.
29. PRICE EVALUATION CRITERIA: There are two categories of materials viz. Filter Water Separator and Micro Filter. The bidder has to quote for both category of materials. Price evaluation shall be done so as to discover L1 for each line item of material. The job will be awarded to L1 bidder for each line item of material.
30. If cost of two or more bids comes out same for each category separately then preference will be given to bidder having more turnover in last three financial years for each category separately.
31. Prior to the expiration of period of bid validity, the owner will notify the successful bidder in writing or by e-mail, that his bid has been accepted. The Notification of Award will constitute the formation of the Contract. Delivery Period shall be counted from the date of notification of award (Letter/Fax/e-mail of Intent).
32. Any efforts by a bidder to influence the owner/ in the owner bid evaluation, bid comparison or contract award decisions may result in the rejection of their bid.
33. ISSUE OF CONTRACT/ PURCHASE ORDER: After the successful bidder has been notified that his bid has been accepted, DAFFPL will send to such bidder a detailed contract/purchase order incorporating all the terms and conditions agreed between the parties. Within 15 days of receipt of the detailed purchase order, the bidder shall sign and return to the



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owner the duplicate copy of the order as a token of their acknowledgement.

34. Vigil Mechanism: DAFFPL has developed the Vigil Mechanism to deal with references/ grievances, if any, that is received from bidders who participated / intends to participate in the tender. The details of the same are available on our website [www.daffpl.in](http://www.daffpl.in)

35. VERIFICATION BY OWNER: All statements submitted by bidder regarding experience, manpower availability, equipment and machinery availability etc., are subject to verification by the owner either before placement of order or after placement of order. If any data submitted by the bidder at the bid stage is found to be incorrect, the offer is liable to be rejected or the contract/order is liable to be terminated.

### 36. EVALUATION OF BIDS

- a. Qualification of Bidder: The experience details and financial & technical capabilities of the bidder(s) shall be examined to determine whether the bidder(s) meet the Bid Qualification Criteria mentioned in the INVITATION FOR BIDS (IFB).
- b. The Owner will examine the bids to determine whether they are complete & if they are free of any computational errors, whether the documents have been properly signed and whether the bids are generally in order.
- c. The bids without requisite Bid Security and/or not in the prescribed proforma will not be considered and bids of such bidder Bidder(s) shall be rejected.
- d. To assist in the examination, evaluation and comparison of technical bids, the owner/ may, at its discretion, ask the Bidder clarifications on the bid. The request for such clarifications and the response thereto shall be through the e-tendering portal.
- e. Prior to the evaluation and comparison of the bid, the owner will determine the substantial responsiveness of each bid to the bidding documents. For the purpose of this Article, a substantially responsive bid is one, which conforms to all the terms and conditions of the bidding document without material deviations or reservations. A material deviation or reservation is one which affects in any substantial way the scope, quality, or performance of the works or which limits in any substantial way, inconsistent with the bidding document, the DAFFPL's rights or Bidder's obligation under the contract and retention of which deviation



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or reservation would affect unfairly the competitive position of other bidders presenting substantially responsive bids. The owner's determination of bid responsiveness is to be based on the contents of the bid itself without recourse to the extrinsic evidence.

- f. A bid determined as substantially non-responsive after final evaluation will be rejected by the Owner and shall not subsequently be allowed by the Owner to be made responsive by the Bidder by correction of the non-conformity.

**Note:**

- 1) **The Bid Shall be submitted in English Language Only**
- 2) **For any Document submitted in any language other than English, the translation copy in English language shall be submitted.**

### **CHAPTER 3: BID-QUALIFICATION CRITERIA**

Bidders need to meet following pre-qualification criteria to qualify for short-listing as a successful vendor, who would be considered for tendering process for the job of "Supply of Micro Filters & Filter Water Separators at DAFFPL Fuel Farm Facility."

- (a) Three similar completed Purchase/Work Orders of supply of Micro Filters and/or Filter Water Separators or supply of Filter Monitor Vessels & in each Work order there should be supply of minimum 02 Nos (Micro Filters and/or Filter Water Separators and/or Filter Monitor Vessels) and in either case the MF/FWS/FMV shall be of Faudi or Parker/Velcon or Facet Make.

OR

- (b) Two similar completed Purchase/Work Orders of supply of Micro Filters and/or Filter Water Separators or supply of Filter Monitor Vessels & in each Work order there should be supply of minimum 04 Nos (Micro Filters and/or Filter Water Separators and/or Filter Monitor Vessels) and in either case the MF/FWS/FMV shall be of Faudi or Parker/Velcon or Facet Make.

OR

- (c) One similar completed Purchase/Work Orders of supply of Micro Filters



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and/or Filter Water Separators and/or supply of Filter Monitor Vessels & in each Work order there should be supply of minimum 06 Nos (Micro Filters and/or Filter Water Separators or Filter Monitor Vessels) and in either case the MF/FWS/FMV shall be of Faudi or Parker/Velcon or Facet Make.

### Notes:

- a. Bidder shall submit orders w.r.t. above criteria and Filter Water Separators shall be part of minimum one similar completed order.
- b. Bidder shall have their own API/EI certification or a valid license from EI certified manufacturers for manufacturing / fabricating the FWS / MF vessel. Bidder shall submit the either copy of their own EI certificate or authorization from EI certified manufacturers along with Technical bid as per EI 1596.
- c. Bidder shall submit certified copy from manufacturer that the vessel is manufactured as per design standards EI 1590 for Micro Filter.
- d. The copy of purchase orders, work orders and completion certificates/proof w.r.t. above criteria to be submitted along with bids.
- e. **SIMILAR WORKS EXPERIENCE:** The Bidder should have experience of successfully completed "similar work" i.e. having supplied Micro Filters(MF), Filter Water Separators(FWS)/Filter Monitor Vessels for Aviation location/equipments (in either case the Micro Filters & Filter Water Separator should be of either Faudi or Parker/Velcon or Facet make), during last 5 years, ending last day of month previous to the one in which tenders are invited, should be either of following:[i.e. completion between 01.10.2016 to 30.09.2021]

### FINANCIAL CAPACITY

Bidder shall have minimum average annual turnover of **Rs. 96.00 Lakhs** as per audited financial results in the preceding three financial/calendar years. "Turnover shall mean Consolidated Turnover in case of a Bidder having wholly owned subsidiaries"

Note: Turnover for this purpose should be as per audited P&L statement including Balance Sheet/ Published Account/ Profit & Loss Account Statement of the tenderer. However, if the tenderer is not required to get its accounts audited under Section 44AB of the Income Tax Act, 1961,





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certificate from a practicing Chartered Accountant towards the turnover of the tenderer along with copies of its income tax return should be obtained.

Total revenue as per schedule III of companies' act, 2013 (earlier revised schedule VI of companies Act, 1956) shall be considered as Turnover. Audited balance sheet / published accounts on calendar year basis shall also be acceptable. The financial statements copy must bear the registration number of the authorised chartered accountant and its seal. (This is not applicable for published annual reports).

- Both the above criteria (Technical & Financial) to be met for acceptance of the bid.

### **OTHER INFORMATION OF BQC**

1. Parties who are affiliates of one another can decide which affiliate will make a bid. Only one affiliate may submit a bid. Two or more affiliates are not permitted to make separate bids directly or indirectly. If 2 or more affiliates submit a bid, then any one or all of them are liable for disqualification. However up to 3 affiliates may make a joint bid as a consortium, and in which case the conditions applicable to a consortium shall apply to them. "Affiliate" of a Party shall mean any company or legal entity which:
  - a. Controls either directly or indirectly a Party, or
  - b. Which is controlled directly or indirectly by a Party; or
  - c. Is directly or indirectly controlled by a company, legal entity or Partnership which directly or indirectly controls a Party. "Control" means actual control or ownership of at least a 50% voting or other controlling interest that gives the power to direct, or cause the direction of, the management and material business decisions of the controlled entity.
2. Bids may be submitted by:
  - a. A single person/ entity (called sole bidder);
  - b. A newly formed incorporated joint venture (JV) which has not completed 3 financial years from the date of commencement of business;
  - c. A consortium (including an unincorporated JV) having a maximum of 3 (three) members;
  - d. An Indian arm of a foreign company.
3. Fulfillment of Eligibility criteria and certain additional conditions in respect





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of each of the above 4 types of bidders are stated below, respectively:

- a. The sole bidder (including an incorporated JV which has completed 3 financial years after date of commencement of business) shall fulfill each eligibility criteria.
- b. In case the bidder is a newly formed and incorporated joint venture and which has not completed three financial years from the date of commencement of business, then either the said JV shall fulfill each eligibility criteria or any one constituent member/promoter of such a JV shall fulfill each eligibility criteria. If the bid is received with the proposal that one constituent member/promoter fulfils each eligibility criteria, then this member/promoter shall be clearly identified and he/it shall assume all obligations under the contract and provide such comfort letter/guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the member/ promoter to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the JV to ensure completion of the contract when awarded, an undertaking not to withdraw from the JV till completion of the work, etc.
- c. In case the bidder(s) is/are a consortium (including an unincorporated JV), then the following conditions shall apply:
  - I. Each member in a consortium may only be a legal entity and not an individual person;
  - II. The Bid shall specifically identify and describe each member of the consortium;
  - III. the consortium member descriptions shall indicate what type of legal entity the member is and its jurisdiction of incorporation (or of establishment as a legal entity other than as a corporation) and provide evidence by a copy of the articles of incorporation (or equivalent documents);
  - IV. One participant member of the consortium shall be identified as the "Prime member" and contracting entity for the consortium;
  - V. This prime member shall be solely responsible for all aspects of the Bid/ Proposal including the execution of all tasks and performance of all consortium obligations;
  - VI. The prime member shall fulfill each eligibility criteria;
  - VII. a commitment shall be given from each of the consortium members in the form of a letter signed by a duly authorized officer clearly identifying the role of the member in the Bid and the member's commitment to perform all relevant tasks



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- and obligations in support of the
- VIII. Prime/lead member of the Consortium and a commitment not to withdraw from the consortium;
  - IX. No change shall be permitted in the number, nature or share holding pattern of the Consortium members after pre-qualification, without the prior written permission of the Owner.
  - X. No change in project plans, timetables or pricing will be permitted as a consequence of any withdrawal or failure to perform by a consortium member;
  - XI. Entities which are affiliates of one another are allowed to bid either as a sole bidder or as a consortium only;
  - XII. Any person or entity can bid either singly or as a member of only one consortium.
- d. In case the bidder is an Indian arm (subsidiary, authorized agent, branch office or affiliate) of a foreign bidder, then the foreign bidder shall have to full fill each eligibility criteria. If such foreign company desires that the contract be entered into with the Indian arm, then a proper back to back continuing (parent company) guarantee shall be provided by the foreign company clearly stating that in case of any failure of any supply or performance of the equipment, machinery, material or plant or completion of the work in all respects and as per the warranties/ guarantees that may have been given, then the foreign company shall assume all obligations under the contract. Towards this purpose, it shall provide such comfort letter/guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the foreign company to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the Indian arm or to render the same themselves so as to ensure completion of the contract when awarded, an undertaking not to withdraw from the contract till completion of the work, etc.



## CHAPTER 4: PERFORMANCE OF WORK

### 1. EXECUTION OF WORKS:

- a. All the works shall be executed in strict conformity with the provisions of the contract documents and with such explanatory detailed drawings, specifications, and instructions as may be. The contractor shall be responsible for ensuring that works throughout are executed in the most substantial, proper and workman like manner with the quality of material and workmanship in strict accordance with the specifications following all safety requirements and to the entire satisfaction of the DAFFPL.
- b. Wherever it is mentioned in the specifications that the Contractor shall perform certain work or provide certain facilities/materials, it is understood that the contractor shall do, so at his cost unless otherwise specified.
- c. The materials, design and workmanship shall satisfy the relevant Indian Standards, the Job specification contained herein and codes referred to. Where the job specification stipulate requirements in addition to those contained in the standards codes and specifications, these additional requirements shall also be satisfied.

### 2. MATERIALS TO BE SUPPLIED BY CONTRACTOR:

- a. The contractor shall procure and provide the whole of the materials required to complete the job including tools, tackles and equipment etc. The materials procured by the contractor shall be DAFFPL approved/specified quality.
- b. All materials procured/used should meet the specifications given in the tender document. The Engineer-in-Charge may, at his discretion, ask for samples and test certificates for any batch of any material. Before procuring, the contractor should get the approval of Engineer-in-Charge for any material to be used for the works.
- c. Manufacturer's certificate shall be submitted for all materials supplied by the contractor. If, however, in the opinion of the Engineer-in-Charge any tests are required to be conducted on the materials supplied by the contractor, these will be arranged by the contractor promptly at his own cost.

### 3. INSPECTION OF WORK:

- a. The Engineer-in-Charge will have full power and authority to inspect the works at any time wherever in progress either on the Site or at the contractor's premises / workshop where situated premises /workshops of any person, firm or corporation where work in



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connect with the contract may be in hand or where materials are being or are to be supplied, and the contractor shall afford or procure for the Engineer-in-Charge every facility and assistance to carry out such Inspection. The contractor shall at all times during the usual working hours and at all other time for which reasonable notice of the intention of the Engineer in-Charge or his representative to visit the works have been given to the contractor, either himself be present to receive order and instructions or post a responsible agent duly accredited in writing for the purpose. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself. The contractor shall give not less than seven days, notice in writing to the Engineer-in-Charge before covering up or placing any work beyond reach of inspection and measurement any work in order that the same may be inspected and measured. In the event of breach of above the same shall be uncovered at contractor's expense carrying out such measurement or inspection.

- b. No materials shall be dispatched by the contractor before obtaining the approval of Engineer-in-Charge in writing.

#### **4. ASSISTANCE TO THE ENGINEERS:**

The contractor shall make available to the Engineer-in-Charge, free of cost necessary instruments and assistance in checking of setting out of works/inspection.

#### **5. TESTS FOR QUALITY OF WORKS:**

- a. All workmanship shall be of the respective kinds described in the contract documents and in accordance with the instructions of the Engineer-in-Charge and shall be subjected from time to time to such test at contractor's cost as the Engineer-in-Charge may direct at place of manufacture or fabrication or on the site or at all or any such places. The contractor shall provide assistance, instruments, labour and materials as are normally required for examining, measuring and testing any workmanship as may be selected and required the Engineer-in-Charge.

#### **6. ACTION AND COMPENSATION IN CASE OF BAD WORK:**

If it shall appear to the Engineer-in-Charge that any work has been executed with unsound, imperfect or unskilled workmanship or with materials of any inferior description, or that any materials or articles provided by the contractor for the execution of the work are unsound or



of a quality inferior to that contracted for, or otherwise not in accordance with the contract, the contractor shall on demand in writing from the Engineer-in-Charge or his authorized representative, specifying the work, materials or articles complained of, notwithstanding that the same have been inadvertently passed, certified and paid for forthwith shall rectify or remove and reconstruct the works specified and provide other proper and suitable materials or articles at his own charge and cost, and in the event of failure to do so within a period to be specified by the Engineer-in-Charge in his demand aforesaid, the contractor shall be liable to pay compensation at the rate of 0.5% of the estimated cost of the whole work, for every week limited to a maximum of 10% of the estimated cost of the whole work, while his failure to do so shall continue and in the case of any such failure the Engineer-in-Charge may on expiry of notice period rectify or remove and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be at the risk and expenses of the contractors in all respects. The decision of the Engineer-in-Charge as to any question arising under this clause shall be final and conclusive.

**7. SUSPENSION OF WORKS:**

The contractor shall, if ordered in writing by the Engineer-in-Charge or his representative, temporarily suspend the works or any part thereof for such period and such time as so ordered and shall not, after receiving such written order, proceed with the work therein ordered to be suspended, until he shall have received a written order to proceed therewith. The contractor shall not be entitled to claim/ compensation for any loss or damage sustained by him by reason of temporary suspension of the works aforesaid. An extension of time for completion, corresponding with the delay caused by any such suspension of the works as aforesaid will be granted to the contractor, should he apply for the same, provided that suspension was not consequent to any default or failure on the part of the contractor.

**8. OWNER MAY DO PART OF WORK:**

Upon failure of the contractor to comply with any instructions given in accordance with the provisions of the contract, the owner has the alternative right, instead of assuming charge for entire work to place additional labour force, tools, equipments and materials on such parts of the work, as the owner may designate or also engage another contractor to carry out the work. In such cases, the owner shall deduct from the amount which otherwise might become due to the contractor, the cost of



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such work and materials with ten percent added to cover all departmental charges and should the total amount thereof exceed the amount due to the contractor, the contractor shall pay the difference to the owner.

### **9. PERIOD OF LIABILITY FROM THE DATE OF COMPLETION OF WORK:**

- a) Materials shall be guaranteed against manufacturing defects, materials, workmanship, and design for a period of 12 months from the date of commissioning or 18 months from the date of delivery whichever is later. Warranty for replacement of material / accessories should be provided free of charges at our premises. The above guarantee/warranty will be without prejudice to the certificate of inspection or material receipt note issued by us in respect of the materials.
- b) All the materials including components and subcontracted items should be guaranteed by the vendor within the warranty period mentioned above. In the event of any defect in the material, the vendor will replace / repair the material at DAFFPL concerned location at vendor risk and cost on due notice.
- c) Alternatively, DAFFPL reserves the right to have the material repaired / replaced at the locations concerned, at the vendor's risk, cost and responsibility, in case, vendor does not replace / repair the material.
- d) The Vendor shall provide similar warranty on the parts, components, fittings, accessories etc. so repaired and / or replaced.
- e) **RISK PURCHASE CLAUSE:** We reserve the right to curtail or cancel the order either in full or part thereof if you fail to comply with delivery schedule and other terms & conditions of the order. DAFFPL also reserves the right to procure same or similar materials/equipment through other sources at vendor's entire risk, cost and consequences.
- f) Any damage that may lie undiscovered at the time of issue of completion certificate, connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by the contractor at his own expense as deemed necessary by the Engineer-in-Charge or in default, the Engineer-in-Charge may cause the same made good by other workmen and deduct expenses (for which the certificate of Engineer-in-Charge shall be final) from any sums that may be then or at any time thereafter, become due to the contractor or from his security deposit. Effects prior to taking over: If at any time, before the work is



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taken over, the Engineer-in-Charge shall

- Decide that any work done, or materials used by the contractor, or any sub-contractor is defective or not in accordance with the contract or that the works or any portion thereof are defective or do not fulfill the requirements of contract (all such matters being herein after called 'Defects' in this clause) and
  - As soon as reasonably practicable, notice given to the contractor in writing of the said decisions specifying particulars of the defects alleged to exist or to have occurred, then the contractor shall at his own expenses and with all speed make good the defects so specified. In the case contractor shall fail to do so, the Owner may take, at the cost of the contractor, such steps as may in all circumstances, be reasonable to make good such defects. The expenditure, so incurred by the Owner shall be recovered from the amount due to the contractor. The decision of the Engineer-in-Charge with regard to the amount be recovered from the contractor will be final and binding on the contractor. As soon as the works have been completed in accordance with the contract and have passed the tests on completion, the Engineer-in-Charge shall issue a certificate (hereinafter called completion certificate) in which he shall certify the date on which the work have been so completed and have passed the said tests and the Owner shall be deemed to have taken over the works on the date so certified. If the works have been divided into various groups in the contract, the Owner shall be entitled to take over any group or groups before the other or others and thereupon the Engineer-in-Charge shall issue a completion certificate which will however, be for such group or groups as taken over only.
- g) Defects after taking over: In order that the contractor could obtain a completion certificate, he shall make good with all possible speed, any defect arising from the defective materials supplied by the Contractor or workmanship or any act of omission of the contract that may have been noticed or developed after the works or group of the works has been taken over. The period allowed for carrying out such work will be normally one month. If any defect be not remedied within a reasonable time, the Owner may proceed to do the work at the contractor's risk and expense and deduct from the final bill such amount as may be decided by the Owner. If by reason of any default on the part of the contractor a completion





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certificate has not been issued in respect of every portion of the work within one month after the date fixed by the contract for the completion of the works, the Owner shall be at his liberty to use the works or any portion thereof in respect of which a completion certificate has been issued provided that the works or the portion thereof so used as aforesaid shall be afforded reasonable opportunity for completing these works for the issue of completion certificate.

- h) The Security Deposit/retention money deducted / furnished shall be retained for the period of liability as given in clause above. This Retention amount or Bank Guarantee furnished against Security Deposit/retention money shall be released only on expiry of the period of liability and also based on the certification of the Engineer-in-charge that no defect/damage has been reported / observed during the stipulated period of liability for the contract.

### **CHAPTER 5: SCOPE OF WORK**

- a) Scope includes supply of Micro Filters & Filter Water Separators along with accessories and hard copies as well as soft copies of applicable drawings/documents etc. for door delivery basis at DAFFPL Fuel Farm in New Delhi.
- b) These shall be suitable for continuous use in Liquid hydrocarbon product, viz. Jet fuel.
- c) Scope includes design/manufacture/assembling/testing, packing & supply in line with specifications mentioned in Annexure-I (technical specifications/material requisition) or anywhere else in tender documents.
- d) The offer/quoted amount should also include all other elements like Custom Duties (if any), Insurance charges, approval charges, testing charges, transportation, and commissioning charges at site for door delivered price of equipment at DAFFPL Fuel Farm, New Delhi in India.





## CHAPTER 6: GENERAL TERMS & CONDITIONS

### 1. General:

The materials and workmanship shall satisfy the relevant Indian Standards, the job specifications contained herein & codes referred to. Where the job specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall also be satisfied.

In the absence of any standard / specification / codes of practice for detailed specifications covering any part of the work covered in this tender document, the instruction / direction of consultant engineer will be binding on the contractor.

Wherever it is stated in this tender document that a particular supply is to be affected or that a particular work is to be carried out, it shall be understood that the same shall be affected / carried out by the contractor at his cost, unless a different intention is specifically and expressly stated herein or otherwise explicit from the context.

2. DAFFPL reserves the right to accept any tender in whole and reject any or all tenders without assigning any reason. DAFFPL also reserves the right to allow public enterprises (Central/State) Price / purchase /contract / service preference as admissible under the Indian Government Policy.

### 3. BID PRICES:

- a) Prices shall be furnished strictly in the Price Bid format of the tender document.
- b) Bidder should quote their lowest and best offered price. Prices so quoted will remain firm till satisfactory completion of order. The price will not be subjected to escalation for any reason whatsoever.
- c) Bidders quoted prices shall be deemed to include entire Specification of item and all obligations and responsibilities to be carried out / executed by the Bidder as per terms of tender document. It is clearly understood by the Vendor that it is for the Vendor to ascertain and assess the applicable Acts/ Regulations/ Laws etc., entirely of their own. It is also for the Vendor to ascertain and assess the applicability of taxes, duties, levies etc. In case of any difference of opinion between Vendor's proposal and interpretation by any tax/assessing (or similar) authorities, on the rate or terms and conditions related to taxes and duties etc.,



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owner's liability shall be strictly as per terms/provisions of the contract based on tender document and Vendors offer.

- d) No other charges accept those mentioned in the tender document will be payable to vendor.
4. Materials are required to be dispatched by the vendor to the locations, on freight paid DOOR- DELIVERY CONSIGNEE COPY ATTACHED basis along with copies of Inspection release note & internal test certificates & other documents as mentioned elsewhere in this tender document.
5. Bidder shall quote considering the cost of all approvals, insurances and other applicable charges; nothing shall be paid/reimbursed additionally on any account.
6. Goods & Services Tax (GST): -The tenderer should have valid Goods & Service Tax registration. Tenderer should enclose the copy of the registration (GST) /copy of acknowledgement along with the tender. The Parties without valid Goods & Service Tax number need not quote. As per Section 171 of CGST/SGST Act, "Any reduction in rate of tax on any supply of goods or services or the benefit of input tax credit shall be passed on to the recipient by way of commensurate reduction in prices.
7. TAXES & DUTIES:
- a) Bidder(s) quoted prices shall be exclusive of all taxes, duties, cess, levies etc.,
- b) The invoice should clearly mention that applicable Excise Duty, Education Cess or any other taxes charged and paid / payable on quoted item to enable the owner to claim MODVAT / Input credit.
- c) The statutory variation in Excise duty, Education Cess and Sales tax / VAT/GST on finished goods and introduction of new tax, from bid due date till the contractual completion period shall be to owner account against submission of the documentary evidence. However, any increase in the rate of these taxes and duties beyond the contractual delivery period shall be to Seller account. Any decrease in the rate of these taxes and duties shall be passed on to the owner. Any additional excise duty due to increase in turn-over would be to seller account.
- d) It is for the Bidder to assess and ascertain the rate of excise duty, education Cess and sales tax/VAT applicable on quoted items. It is clearly understood that Owner will not have any additional liability towards payment of Excise Duty, Education Cess, GST and Sales



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Tax/VAT which is based on Bidders wrong assessment / interpretation of applicability of such Excise Duty and/or education cess and / or Sales Tax/VAT.

- e) Successful bidder shall carry out its obligations towards services at site as mentioned in technical specifications without any extra charges.
- f) Octroi/Entry tax, if any, in the any state of India shall be directly paid by the vendor, if applicable.
- g) DAFFPL shall not be liable, in case the tax authorities assess the tax elements in a different way on account of any reason, whatsoever.
- h) Taxes and duties other than those specified in this document, if any, shall be included in the quoted prices and no separate reimbursement shall be made by DAFFPL.

### 8. Income Tax / Corporate Tax:

- a) As regards Income Tax, Surcharge on Income Tax or any other Corporate Tax payable by the Bidder for reason of the contract awarded, and / or on their expatriate personal, the Owner shall not bear any Tax liability whatsoever, irrespective of the mode of construction of contract / order. The Bidder shall be liable and responsible for payment of such tax, if attracted under the provision of Indian Income Tax Act.
- b) Bidder may note that if any tax is deductible at source as per Indian Income Tax Law, the same will be deducted before releasing any payment to the Bidder and a TDS (Tax deducted at source) certificate will be furnished to the Bidder.
- c) Bidder may note that where the responsibility to deduct TDS under section 194Q of Income Tax Act is on DAFFPL, bidder shall not collect any TCS under section 206C(1H) of the Income Tax Act from DAFFPL.**
- d) Accordingly, Bidder shall have the responsibility to check and include such provision of taxes in the prices.
- e) In case of delay in delivery due to reasons attributable to Bidder, any new or additional taxes or duties levied by Statutory authorities during this period shall be borne by the Bidder.

### 9. EMD / BID SECURITY

- a) The bidder shall furnish, as part of his bid, a bid security in original for the amount specified in the tender document by way of pay order, bank guarantee on Rs.100/-value non-judicial stamp paper or demand draft.
- b) The bid security is required to protect the Owner against the risk of



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Bidders conduct, which would warrant the security forfeiture.

- c) If bid Security / EMD is in the form of bank guarantee, it shall be in the form of irrevocable bank guarantee (in the format attached) issued by any Indian Scheduled Bank (other than Co-operative Bank) will be accepted.
- d) Bid Security / EMD shall be issued in favour of M/s Delhi Aviation Fuel Facility (P) Limited, New Delhi.
- e) Unsuccessful bidders bid security without any interest will be discharged/ returned as promptly as possible, but not later than 60 days after the expiry of the period of bid validity prescribed by the Owner.
- f) The successful bidder bid security without any interest will be discharged, upon the Bidder accepting the Contract/ Purchase Order and furnishing the Contract performance bank guarantee to DAFFPL.
- g) The bid security may be forfeited:
  - i. If a bidder withdraws his bid during the period of bid validity or
  - ii. In the case of a successful bidder, if the bidder fails or refuses to:
    - Accept the Purchase Order in accordance with agreed terms and conditions.
    - Furnish Contract performance bank guarantee as per bid document/ Purchase Order.
  - iii. Detection of submission of false / forged documents and fraud.
- h) Central Public Sector Undertaking of Govt. Of India are exempted from furnishing the bid security. Firms registered with NSIC/ MSME are also exempted from furnishing bid security, provided they are registered for the tendered items and up to the monetary limit they intend to quote. Provided further that they submit a copy of the current and valid registration certificate for the quoted item and monetary value along with their bid(s). Owner reserves right to verify the registration certificate provided, with relevant authorities.

### **10. CONTRACT PERFORMANCE BANK GUARANTEE [CPBG]**

- a) As a Performance security, the successful Bidder, to whom the work is awarded by, shall be required to furnish within 30 days of notification of award of contract (Letter/ Fax/e-mail of Intent) a Performance Bank Guarantee on RS.100/- VALUE non-judicial stamp paper in favour of the Owner (M/S DAFFPL).



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- b) The Bank Guarantee amount shall be equal to TEN PERCENT (10%) of the Total Order Value, and it shall guarantee the faithful performance of the Order in accordance with the Terms and conditions specified in the documents and specifications.
- c) CPBG shall be in the form of an irrevocable Bank Guarantee (in the format attached) issued by any Indian Scheduled Bank (other than Co-operative Bank).
- d) The Bank Guarantee shall be valid for the entire period of the Contract, namely, till the end of the guarantee / warranty period. The guarantee amount shall be payable on demand to the Owner.
- e) In case, the Contract Performance Bank Guarantee stated above gets reduced/ deducted for reasons of non-fulfillment of any Contractual obligations upto the completion of guarantee period, the bidder shall immediately take action to increase the value of Bank Guarantee to TEN PERCENT (10%) of the Contract price, to cover his guarantee/warranty obligations.
- f) The Performance Guarantee will be returned to the bidder without any interest at the end of the warranty / guarantee period subject to fulfillment of all contractual obligations by the Bidder. The bank guarantee shall have a claim period of 06 months beyond the contractual guarantee period.
- g) The proceeds of performance security shall be appropriated by the owner as compensation for any loss resulting from vendor's failure to complete his obligations under the contract to the prejudice to any of the rights or remedies the owner may be entitled to as per terms and conditions of contract. The proceeds of this performance security shall also govern the successful performance of goods and services and vendors all obligations during the entire period of contractual warrantee / guarantee.

### **11. PRICE REDUCTION FOR DELAY IN DELIVERY:**

- a) The completion period quoted must be realistic & specific. The inability of successful bidder to execute orders in accordance with the agreed completion schedule will entitle DAFFPL, at its options, to:
- b) Accept delayed delivery at prices reduced by a sum equivalent to half percent (0.5%) of the total order value of material not delivered for every week of delay or part thereof which is to be considered as a week, limited to a maximum of 10% of the total order value. Date of delivery of material/equipments at DAFFPL site shall be considered for calculation of price reduction.
- c) The price reduction clause shall become applicable for delivery of



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material/equipment beyond the schedule delivery period.

- d) The price reduction will be applicable on ready to use Filter Water Separator/s & Micro Filter/s which is delivered after due date and total cost of material which is delivered after due date shall be considered for application of this clause.

12. Early Delivery: DAFFPL shall appreciate early delivery of the complete Micro Filters & Filter Water Separators.

### 13. INSURANCE

Supplier shall carry and maintain any and all statutory insurance(s) required under Indian Laws and Regulations, including Workmen compensation Act/ESI/Third party liabilities etc. and insurances for their personnel engaged in performance of the work at their own cost.

The complete unit is to be fully insured by the Fabricator/Manufacturer/Supplier against loss, damage, and third party risks till the material/equipment is delivered to final destination.

#### TRANSIT & COMPREHENSIVE INSURANCE

The vendor shall arrange transit Insurance for door delivery of equipments to DAFFPL Fuel Farm, New Delhi for delivery.

### 14. INSPECTION:

- a) Material / construction/Fabrication shall be inspected by owner or its representative. Charges other than third party inspection, is entirely vendor responsibility and in no way should affect the completion schedule.
- b) OWNER may, at its own expense, witness any test or inspection. In order to enable OWNER to witness the tests/inspections OWNER will advise the bidder in advance whether it intends to be present at any of the inspections.
- c) Even if the inspection and tests are fully carried out, the Vendor shall not be absolved from its responsibilities to ensure that the Material(s), raw materials, components and other inputs are supplied strictly to conform and comply with all the requirements of the Contract at all stages, whether during manufacture and fabrication, or at the time of Delivery as on arrival at site and after its commissioning or start up and during the defect liability period. The inspections and tests are merely intended to prima-facie satisfy



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OWNER that the Material(s) and the parts and components comply with the requirements of the Contract. The Vendor's responsibility shall also not be anyway reduced or discharged because OWNER or OWNER's representative(s) or Inspector(s) shall have examined, commented on the Vendor's drawings or specifications or shall have witnessed the tests or required any chemical or physical or other tests or shall have stamped or approved or certified any Material(s).

- d) Although material approved by the Inspector(s), if on testing and inspection after receipt of the Material(s) at the location, any Material(s) are found not to be in strict conformity with the contractual requirements or specifications, OWNER shall have the right to reject the same and hold the Vendor liable for non-performance of the Contract.

### **15. GUARANTEE/WARRANTY:**

- i) Materials shall be guaranteed against manufacturing defects, materials, workmanship, and design for a period of 12 months from the date of commissioning or 18 months from the date of delivery at DAFFPL site whichever is later. Warranty for replacement of material / accessories should be provided free of charges at our premises. The above guarantee/warranty will be without prejudice to the certificate of inspection or material receipt note issued by us in respect of the materials.
- j) All the materials including components and subcontracted items should be guaranteed by the vendor within the warranty period mentioned above. In the event of any defect in the material, the vendor will replace / repair the material at DAFFPL concerned location at vendor risk and cost on due notice.
- k) Alternatively, DAFFPL reserves the right to have the material repaired / replaced at the locations concerned, at the vendors risk, cost and responsibility, in case, vendor does not replace / repair the material.
- l) The Vendor shall provide similar warrantee on the parts, components, fittings, accessories etc. so repaired and / or replaced.
- m) Vendor shall guarantee that the performance of the EQUIPMENT supplied under the CONTRACT shall be strictly in conformity with the specifications and shall perform the duties specified under the CONTRACT.
- n) During the entire warranty period as above, the vendor shall carry out the preventive checks (half yearly visits) besides attending to break downs within a period of 72 hours. The scope of the vendor shall also include the spares, tools & tackles etc. visit of service





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personnel and other traveling/boarding expenses replacement of defective parts free of cost, if any. However, suitable assistance (unskilled labour and lifting tools) if any, required for attending the service/repairs will be provided by the Owner.

- o) **RISK PURCHASE CLAUSE:** We reserve the right to curtail or cancel the order either in full or part thereof if bidder fails to comply with delivery schedule and other terms & conditions of the order. DAFFPL also reserves the right to procure same or similar materials/equipment through other sources at vendor's entire risk, cost and consequences.

### **16. AFTER SALES SERVICES:**

Vendor should assume complete responsibility of satisfactory performance of the Filter Water separator, Micro Filters and material used and the after sales service. During the period of warranty, the vendor shall provide free maintenance and service backup. All the complaints shall be attended to immediately within 72 hrs of reporting of a complaint.

### **17. TEST & PERFORMANCE CERTIFICATES:** Bidder shall furnish Material test and Performance Certificates for the materials along with the challans and invoice.

### **18. PAYMENT TERMS:** The payment will be made after making necessary deductions as applicable & stipulated elsewhere in the tender document for materials, security deposit or any moneys due to the Owner etc.

Advance Payment is not permissible in this contract.

Submission of PBG equal to 10% of Total Order Value with in 30 days of issue of LOI/PO is compulsory.

The following payment terms shall be applicable:

- 80% will be released within 30 days from after the receipt and acceptance of material at site adjusting deductible if any.
- Balance 20% after completion of installation, testing & commissioning of Material at site on prorata basis.

**Arrangement for Transit e-way Bill under the GST Act for all the purchases is the responsibility of the tenderer.**

### **19. Only in the event of causes of Force Majeure occurring within the**





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contractual delivery period and if they impede the performance of contract, the delivery dates shall be extended on receipt of application from the bidder / Owner without imposition of penalty. Only those causes which depend on natural calamities, civil wars, fire and national strikes which have duration of more than seven consecutive calendar days are considered the causes of force Majeure. The decision of Owner shall be final and binding on vendor.

20. The Vendor must advise the Owner by a registered letter duly certified by Local Chamber of Commerce or statutory authorities and Owner must advise the Vendor by a letter, the beginning and the end of the delay immediately, but in no case later than within 10 days of the beginning and end of such causes of Force Majeure condition as defined above. Provided further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such event for period exceeding 60 days either party may at its option terminate the contract.
21. Repeat Order: DAFFPL reserves the right to place repeat order up to the order quantity within One Year from the date of original order on mutual agreement basis.
22. Any reference to the Govt. Acts /Regulations etc. in the Bid Document is only indicative, and it is entirely for the bidder to ascertain the applicable Acts/Regulations.
23. RECOVERY OF SUMS DUE: Whenever, any claim against bidder for payment of a sum of money arises out of or under the contract or in any other form, the owner shall be entitled to recover such sums from any sum then due or when at any time thereafter may become due from the vendor under this or any other form and should this sum be not sufficient to cover the recoverable amount of claim(s), the vendor shall pay to DAFFPL on demand the balance remaining due.
24. PATENTS & ROYALTIES: The vendor shall fully indemnify owner and users of materials specified herein/supplied at all times, against any action, claim or demand, costs and expenses, arising from or incurred by reasons of any infringement or alleged infringement of any patent, registered design, trademark or name, copy right or any other protected rights in respect of any materials supplied or any arrangement, system or method of using, fixing or working used by the vendor. In the event of any claim or demand



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being made or action sought against Owner in respect of any of the aforesaid matter, the vendor shall be notified thereof immediately and the vendor shall at his/its own expense with (if necessary) the assistance of Owner (whose all expense shall be reimbursed by the vendor) conduct all negotiations for the settlement of the same and/or litigation which may arise thereof.

25. **LIABILITY CLAUSE:** In case where it is necessary for employees or representatives of the Vendor to go upon the premises of owner, vendor agrees to assume the responsibility for the proper conduct of such employees/representatives while on said premises and to comply with all applicable Workmen s Compensation Law and other applicable Government Regulations and Ordinances and all plant rules and regulations particularly in regard to safety precautions and fire hazards. If this order requires vendor to furnish labour at site, such vendors workmen or employees shall under NO circumstances be deemed to be in owner s employment and vendor shall hold himself responsible for any claim or claims which they or their heirs, dependent or personal representatives, may have or make, for damages or compensation for anything done or committed to be done, in the course of carrying out the work covered by the purchase order, whether arising at owner s premises or elsewhere and agrees to indemnify the owner against any such claims, if made against the owner and all costs of proceedings, suit or actions which owner may incur or sustain in respect of the same.
26. **COMPLIANCE OF REGULATIONS:** Vendor warrants that all goods/Materials covered by this order have been produced, sold, dispatched, delivered and furnished in strict compliance with all applicable laws, regulations, labour agreement, working condition and technical codes and statutory requirements as applicable from time to time. The vendor shall ensure compliance with the above and shall indemnify owner against any actions, damages, costs and expenses of any failure to comply as aforesaid.
27. **REJECTION, REMOVAL OF REJECTED GOODS AND REPLACEMENT:** In case the testing and inspection at any stage by inspectors reveal that the equipment, materials and workmanship do not comply with specification and requirements, the same shall be removed by the vendor at his/its own expense and risk, within the time allowed by the owner/purchaser. The Purchaser shall be at liberty to dispose off such rejected goods in such manner as he may think appropriate, in the event the vendor fails to remove the rejected goods within the period as aforesaid. All expenses



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incurred by the Purchaser for such disposal shall be to the account of the vendor. The freight paid by the purchaser, if any, on the inward journey of the rejected materials shall be reimbursed by the vendor to the purchaser before the rejected materials are removed by the vendor. The vendor will have to proceed with the replacement of the Equipments without claiming any extra payment if so required by the purchaser. The time taken for replacement in such event will not be added to the contractual delivery period.

28. NON-WAIVER : Failure of the Owner to insist upon any of the terms or conditions incorporated in the Purchase Order or failure or delay to exercise any rights or remedies herein, or by law or failure to properly notify Vendor in the event of breach, or the acceptance of or payment of any goods hereunder or approval of design shall not release the Vendor and shall not be deemed a waiver of any right of the Owner to insist upon the strict performance thereof or of any of its or their rights or remedies as to any such goods regardless of when such goods are shipped, received or accepted nor shall any purported oral modification or revision of the order by DAFFPL act as waiver of the terms hereof. Any waiver to be effective must be in writing. Any lone incident of waiver of the any condition of this agreement by DAFFPL shall not be considered as a continuous waiver or waiver for other condition by DAFFPL.

29. NEW & UNUSED MATERIAL: All the material supplied/used by the vendor shall be branded new, unused and of recent manufacture.

### 30. CANCELLATION:

- a) DAFFPL reserves the right to cancel the contract/purchase order or any part thereof through a written notice to the vendor if –
  - i. The vendor fails to comply with the terms of this purchase order/contract.
  - ii. The vendor becomes bankrupt or goes into liquidation.
  - iii. The vendor fails to deliver the goods on time and/or replace the rejected goods promptly.
  - iv. The vendor makes a general assignment for the benefit of creditors.
  - v. A receiver is appointed for any of the property owned by the vendor.
  - vi. Any other conditions where owners commercial interest get affected.
- b) Upon receipt of the said cancellation notice, the vendor shall



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discontinue all work on the purchase order matters connected with it. DAFFPL in that event will be entitled to procure the requirement in the open market and recover excess payment over the vendor's agreed price if any, from the vendor and also reserving to itself the right to forfeit the security deposit if any, made by the vendor against the contract. The vendor is aware that the said goods are required by DAFFPL for the ultimate purpose of materials production and that non-delivery may cause loss of production and consequently loss of profit to the DAFFPL. In this-event of DAFFPL exercising the option to claim damages for non delivery other than by way of difference between the market price and the contract price, the vendor shall pay to DAFFPL, fair compensation to be agreed upon between DAFFPL and the vendor. The provision of this clause shall not prejudice the right of DAFFPL from invoking the provisions of price reduction clause mentioned aforesaid.

31. ANTI –COMPETITIVE AGREEMENTS/ABUSE OF DOMINANT POSITION: The Competition Act, 2002 as amended by the Competition (Amendment) Act, 2007 (the Act), prohibits anti- competitive laws and aims at fostering competition and at protecting Indian markets against anti- competitive practices by enterprises. The Act prohibits anti- competitive agreements, abuse of dominant position by enterprises, and regulates combinations (consisting of acquisition, acquiring of control and M&A) wherever such agreements, abuse or combination causes, or is likely to cause, appreciable adverse effect on competition in markets in India. DAFFPL reserves the right to approach the Competition Commission established under the Act of Parliament and file information relating to anti-competitive agreements and abuse of dominant position. If such a situation arises, then Vendors are bound by the decision of the Competitive Commission and also subject to penalty and other provisions of the Competition Act.
32. ASSIGNMENT: The Vendor can / does not have any right to assign his rights and obligations under these general purchase conditions without the prior written approval of DAFFPL.
33. GOVERNING LAW: These General Purchase Conditions shall be governed by the Laws of India.
34. AMENDMENT: Any amendment to these General Purchase Conditions can be made only in writing and with the mutual consent of the parties to these conditions.



35. The following expressions used in these terms and conditions and in the purchase order shall have the meaning indicated against each of these:
- a) **OWNER**, Client, Purchaser, buyer means DAFFPL
  - b) **VENDOR**, tenderer, Bidder, Contractor, Seller, Supplier, manufacturer stated anywhere in the tender document carry the same meaning: It means the person, firm or the Company / Corporation to bidding and shall include its successors and assigns.
  - c) **INSPECTOR/ TPIA**: Person/agency deputed by Owner for carrying out inspection, checking/testing of items ordered and for certifying the items conforming to the purchase order specifications.
  - d) **GOODS / MATERIALS**: means any of the articles, materials, machinery, equipment's, supplies, drawing, data and other property and all services including but not limited to design, delivery, installation, inspection, testing and commissioning specified or required to complete the order.
  - e) **SITE / LOCATION**: means any Site where DAFFPL desires to receive materials anywhere in India as mentioned in tender.
  - f) **CONTRACT**, Order or Purchase Order/CALL-OFF means the agreement for supply of goods/ materials for required quantity between Owner and Vendor, for a fixed time on mutually agreed terms and conditions.
  - g) The term MR means Material Requisition containing technical requirements and scope of work (technical), GPC means General Purchase Conditions containing commercial terms & conditions, PO means Purchase order issued after award of contract incorporating agreed deviations in MR, ATC means Agreed Terms & Conditions , RFQ means Request For Quotation.
  - h) For the purpose of contract, the trade terms FOB, CFR and CIF, DAP shall have the meanings as assigned to them by INCOTERMS 2010 published by ICC, Paris.

36. REFERENCE FOR DOCUMENTATION:

The number and date of Collective Request for Quotation (CRFQ) must appear on all correspondence before finalization of Contract / Purchase Order.

After finalization of Contract / Purchase Order: The number and date of Contract /Purchase Order must appear on all correspondence, drawings, invoices, dispatch advice, (including shipping documents if applicable) packing list and on any documents or papers connected with this order.



37. ARBITRATION

- a) Any 'dispute or difference of any nature whatsoever, any claim, cross-claim, counterclaim or set off of the Owner against the Consultant or regarding any right, liability, act, omission or account of any of the parties hereto arising out of or in relation to this agreement shall be referred to the Sole Arbitration of the nominated Director of the Owner or of some Officer of the Owner who may be nominated by the nominated Director. The consultant will not be entitled to raise any objection to any such arbitrator on the ground that the arbitrator is an officer of the Owner or that he has dealt with the matters to which the contract relates or that in the course of his duties as an Officer of the Owner, he had expressed view on all or any other matters in dispute or difference. In the event of the arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, the nominated Director as aforesaid at the time of such transfer, vacation of office or inability to act may in the discretion of the nominated Director designate another person to act as arbitrator in accordance with the terms of the agreement to the end and intent that the original Arbitrator shall be entitled to continue the arbitration proceedings notwithstanding his transfer or vacation of office as an officer of the Owner if the nominated Director does not designate another person to act as arbitrator on such transfer, vacation of office or inability of original arbitrator. Such person shall be entitled to proceed with the reference from the point at which it was left by his predecessor. It is also a term of this contract that no person other than the nominated Director of the Owner or a person nominated by such nominated Director as aforesaid shall act as arbitrator hereunder. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to the agreement subject to the provisions of the Arbitration & Conciliation Act, 1996 or any statutory modification or reenactment thereof and the rules made there under for the time being in force shall apply to the arbitration proceedings under this clause.
- b) The arbitrator shall have power to order and direct either of the parties to abide by, observe and perform all such directions as the arbitrator may think fit having regard to the matters in difference i.e. dispute, before him. The arbitrator shall have all summary powers and may take such evidence oral and/or documentary, as the arbitrator in his absolute discretion thinks fit and shall be entitled to



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exercise all powers under the Indian Arbitration & Conciliation Act 1996 including admission of any affidavit as evidence concerning the matter in difference i.e. dispute before him.

- c) The parties against whom the arbitration proceedings have been initiated, that is to say, the Respondents in the proceeding, shall be entitled to prefer a cross claim, counter claim or set off before the Arbitrator in respect of any matter in issue arising out of or in relation to the Agreement without seeking a formal reference of arbitration to the nominated Director/officer for such counter-claim, or set off and the Arbitrator shall be entitled to consider and deal with the same as if the matters arising therefore has been referred to him originally and deemed to form part of the reference made by the nominated Director/officer.
- d) The arbitrator shall be at liberty to appoint, if necessary any accountant or engineering or other technical person to assist him, and to act by the opinion so taken.
- e) The arbitrator shall have power to make one or more awards whether interim or otherwise in respect of the dispute and difference and in particular will be entitled to make separate awards in respect of claims of cross claims of the parties.
- f) The arbitrator shall be entitled to direct any one of parties to pay the costs to the other party in such manner and to such extent as the arbitrator may in his discretion determine and shall also be entitled to require one or both the parties to deposit funds in such proportion to meet the arbitrators expenses whenever called upon to do so.
- g) The parties hereby agree that the courts in the city of Delhi alone shall have jurisdiction to entertain any application or other proceedings in respect of anything arising under this agreement and any award or awards made by the Sole Arbitration hereunder shall be filed (if so required) in the concerned courts in the city of Delhi only.







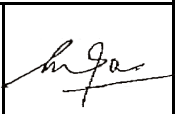
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<b>Document No.</b>	DAFFPL/SGC/MR/0004	<b>Rev.</b>	0		

<b>Project Name:</b>	Providing Design Consultancy Services for Laying of Additional Receipt Header inside Fuel Farm Facility of DAFFPL.				
<b>Client:</b>	Delhi Aviation Fuel Facility Private Limited				
<b>Location:</b>	Delhi	<b>Document No.:</b>	DAFFPL/SGC/MR/0004		

## MATERIAL REQUISITION FOR MICRO FILTER AND FILTER WATER SEPARATOR



Rev	Date	Description	Prepared	Reviewed	Approved	Client Review
0	10-10-2021	For Tender				



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Sr. No	Item Description	Reference	Qty.
1	<b>MICRO FILTER (Capacity - 570 KL/hr. to 600 KL/hr.):</b> Micro Filter complying with specification EI 1590 Latest Edition and designed as per EI 1596 Latest Edition and ASME Code Sec. VIII Div. I latest edition.	Specifications and Datasheet for Micro Filter	2
2	<b>FILTER WATER SEPARATOR (Capacity - 570 KL/hr. with <math>\pm</math> (0.5%) acceptable variation):</b> Filter water complying with specification EI 1581 Latest Edition, Category C, Type S and designed as per EI 1596 Latest Edition and ASME Code Sec. VIII Div. I latest edition.	Specifications and Datasheet for Filter Water separator	2

Annexure No	Description
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Annexure B	PROCESS DATASHEET FOR MICRO FILTER
Annexure C	SPECIFICATION FILTER WATER SEPARATOR
Annexure D	PROCESS DATASHEET FOR FILTER WATER SEPARATOR
Annexure E	DATASHEET FOR DIFFERENTIAL PRESSURE TRANSMITTER

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**ANNEXURE -A**  
**SPECIFICATION FOR MICRO FILTER**

0	10-10-2021	Issued for Tender	DR	AP	SKJ	
<b>Rev</b>	<b>Date</b>	<b>Description</b>	<b>Prepared</b>	<b>Reviewed</b>	<b>Approved</b>	<b>Client Review</b>

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## SPECIFICATION FOR MICRO FILTER

Clause	Area	Description
1.0	General	Supply of Micro Filter <ul style="list-style-type: none"> <li>• Micro Filter with accessories as per attached “Specification &amp; Datasheet of Micro Filters”</li> </ul>
2.0	Scope	<ol style="list-style-type: none"> <li>1. This specification covers the minimum requirements for design, engineering, Preparation of fabrication drawings, manufacturing, inspection, testing and supply of micro filter separator complete with supports and all other accessories and appurtenances including all filter cartridges.  Each vessel assembly to be supplied with pressure safety valve (PSV), direct reading differential pressure gauge (DRDP), Differential Pressure Transmitter, water level indicator, vent, automatic air eliminator, drain sump and sample traps with isolation valves etc. and other provisions as per specification and manufacturer’s standard practice.</li> <li>2. Supply of 3 sets of cover Gaskets for each vessel (1 installed + 2 Spare).</li> <li>3. Supply of 2 set of filter elements for each vessel (1 set for installation in vessel and 1 spare set).</li> </ol>
3.0	Service	<ol style="list-style-type: none"> <li>1. <b>Product:</b> Jet A1 ATF</li> <li>2. <b>Installation:</b> Unprotected/open area &amp; outdoor service.</li> <li>3. <b>Operation Time:</b> Continuous service.</li> <li>4. <b>Temperature Range:</b> - As per standard temperature mentioned in EI 1596</li> <li>5. <b>Relative Humidity:</b> Up to 98% during Monsoon.</li> <li>6. <b>Rainfall:</b> Moderate to heavy rainfall during Monsoon.</li> </ol>



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Clause	Area	Description
4.0	Codes and Standard	<ol style="list-style-type: none"> <li>1. EI 1596: Design and construction of Aviation Fuel Filter Vessel.</li> <li>2. EI 1590: Specifications and qualification procedures for aviation fuel micro filters</li> <li>3. EI 1541: Performance requirements for protective coating systems used in aviation fuel storage tanks and piping</li> <li>4. ASME B 16.25: Butt welding ends.</li> <li>5. ASME B 16.47 Series - A: for sizes 22” and sizes ranging from 26” - 36”.</li> <li>6. ASME B 16.5: Pipe Flanges and Flanged Fitting: NPS ½” to 24” except 22”.</li> <li>7. ASME B 16.47 Series B: For size above 36”.</li> <li>8. ASME B 16.9: Factory-made wrought butt-welding fittings.</li> <li>9. ASME B 31.3: Process Piping.</li> <li>10. ASME B 31.4: Pipeline Transportation System for Hydrocarbons and Other Liquids.</li> <li>11. ASME B 16.34 - Valves: Flanged, Threaded and Welding Ends.</li> <li>12. ASME Sec II to IX: Boiler and Pressure Vessel Code.</li> <li>13. SSPC-VIS-1-Steel Structures Painting Council Visual Standard.</li> <li>14. ISO 8501-1, 515 055900: Rust grades and preparation of uncoated steel substrates.</li> <li>15. ANSI SEC II &amp; ASTM: Material Specifications.</li> </ol> <p><b>Note:</b> Other international standards may also be accepted subject to their being equivalent or superior with prior approval of the owner.</p> <p>For provisions not covered by the above codes and standards, relevant applicable codes, best engineering practices and norms shall govern.</p> <p>All Codes / Standards, wherever specified in this document, shall mean the latest edition of that Code/ Standard applicable as on the date of Notice Inviting tender.</p>
5.0	Design and Construction	<p><b>1.0 VESSEL</b></p> <ol style="list-style-type: none"> <li>a) Filter vessels shall be designed and constructed in accordance with EI 1596 Latest Edition and ASME Code Sec. VIII Div. I latest edition and pressure vessel code or with equivalent.</li> <li>b) Corrosion allowance of 1.5 mm shall be considered for all carbon steel parts, unless otherwise mentioned in the data sheets.</li> <li>c) The micro filter assembly shall have capacity to handle flow rate as indicated in Material Requisition and Design Data of the project.</li> <li>d) Material of construction shall be ASTM A 516 or equivalent or superior.</li> <li>e) Pre filter shall be designed for a working pressure of ANSI 150#</li> </ol>



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Clause	Area	Description
		<p>f) The inlet and outlet nozzle connections shall be 10” ANSI 150#. The branch connections shall be reinforced with saddle plates. The flanges shall conform to ANSI B 16.5 latest edition (for sizes ½” to 24” except 22”) and ASME B 16.47 (Series - A: For sizes 22”, 24” to 36” Series - B: For sizes more than 36”). It shall be of Weld Neck raised face type.</p> <p>g) To permit access to the far end of the vessel for maintenance purpose, the vessel’s length (L) to diameter (D) ratio shall be limited by the following expression:</p> <ul style="list-style-type: none"> <li>• For Vessel ≤ 24-inch Diameter: <math>L / D \leq 1.75</math>.</li> <li>• For Vessel &gt; 24-inch Diameter: <math>L / D \leq 2.5</math>.</li> </ul> <p>h) Bidder to ensure proper flow distribution to utilize the full cartridge area available for filtration. Under no circumstances, the inlet fluid shall be allowed to directly impinge on the cartridge element.</p> <p>i) Nozzle / davit / vessel support / door orientation shall be as per approved orientation drawing to be released at post order stage.</p> <p>j) Filter vessel support length shall be decided during detailed engineering based on actual layout requirement &amp; approval for same shall be taken from owner.</p> <p>k) Vessel diameter shall be at least two times inlet nozzle diameter.</p> <p>l) Vessels shall be post weld heat treated whenever it is required due to service requirement or due to code requirement. Vessel shall be post weld heat treated as a complete unit and no welding shall be permitted once the PWHT is performed.</p> <p>m) Each vessel shall be hydro tested as per ASME Sec VIII</p> <p><b>2.0 FILTER ELEMENT (CARTRIDGE)</b></p> <p><b>2.1 General (For all Type of Cartridge)</b></p> <p>a) The cartridge assembly shall have capacity to handle flow rate as indicated in Material Requisition and Design Data of project.</p> <p>b) Cartridge assembly shall able to achieve desired outlet quality for the product to be handled as mentioned in the specific requirement of the project.</p> <p>c) The cartridges / elements shall be of PECO-FACET / PARKER / FAUDI / VELCON make only.</p> <p>d) Size, type, model and number of elements shall be selected based on the supplier recommendations. Recommendation sheet should be stamped and signed by original element (cartridge) manufacturer.</p>



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		<p>e) Internal cross section, showing the arrangement and inter distances between elements shall also be stamped and signed by original element (cartridge) manufacturer.</p> <p>f) The filter elements and the element sealing device shall be capable of withstanding a differential pressure as per EI 1590 (Latest edition) without rupture, bypassing of seals, or the emergence of pinhole leaks. The maximum differential pressure (bursting pressure) shall be stated by the bidder.</p> <p>g) Maximum permissible pressure drop is 1.5 Kg/cm<sup>2</sup> through filter cartridges. The manufacturer shall state the average differential pressure across a new clean element operating at the flow rate mentioned in the Material Requisition, Specifications, Datasheet and Design Data of the project.</p> <p>h) The cartridge shall be of single piece construction, with no joints.</p> <p><b>2.2 Micro Filter Element</b> Micro Filter cartridge shall able to hold any solid particle of size more than 5 μ with the efficiency of 99.98% (β ratio - 5000). The specified efficiency shall be maintained at least up to a differential pressure of 1.5 kg/cm<sup>2</sup>. Pressure drop across Micro Filter in clean condition shall be as per EI 1590.</p> <p><b>3.0 VENT AND PRESSURE RELIEF TAPS</b> Every Filter Casing shall be provided with a tap for a pressure relief valve to relieve thermal expansion of the fuel. A connection for an air eliminator shall be provided at the highest fuel flow point in the vessel. Supply of PSV and suitable valve in the vent line are under the scope of Bidder.</p> <p><b>4.0 DRAIN &amp; SAMPLE TAPS</b> Drain Sump will be provided on the main shell of the filter casing at the lowest level which will have an elbow of 1” size having 1” BSP female threads fitted. Two sockets and plugs of stainless steel will be provided (one on the lowest point and one on the highest point) on the inlet chamber of the filter casing. Two number of sockets and plugs of stainless steel along with Teflon seals will also be provided (one on the lowest point and one on the highest point) on the outlet chamber. These sockets and plugs will have 1” BSP threads. The drain and sample traps shall be provided with a suitable double isolation valve.</p>





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		<p><b>5.0 AIR ELIMINATOR</b> Each filter shall be fitted with an Air Eliminator for automatically venting trapped air from the top of the vessel. Isolation valve (lock open) shall also be provided at the inlet of air eliminator.</p> <p><b>6.0 PRESSURE RELIEF VALVE</b> Each filter shall be fitted with a pressure relief valve to ensure that the design working pressure of the vessel is never exceeded. Isolation valve (Lock open) shall also be provided at the inlet of Pressure relief valve.</p> <p><b>7.0 SPACING OF ELEMENTS</b> Touching of elements to each other or the shell of filter casing must be avoided. There shall be adequate space available between filters for removal / replacement of filters. The layout of element in the vessel shall provide a minimum clearance of 13 mm between element and vessel wall. No surface shall be closer than 7 mm from the surface of another element. Fabricator must be able to provide testing for proper spacing during inspection / testing.</p> <p><b>8.0 GASKETS</b> All gaskets must be of Viton-A or Buna-N or equivalent material. Cork or rubber impregnated cork gaskets and gasket containing asbestos shall not be used.</p> <p><b>9.0 END DISHES</b> End Dishes will be given shape by hydraulic press and not by hammering. Dished ends shall be of seamless construction, tori spherical or 2:1 ellipsoidal type and shall be heat treated after forming as per ASME Sec VIII Div. 1. All end dishes should be offered for inspection.</p> <p><b>10.0 PRESSURE TAPS</b> Pressure taps / connection shall be provided to connect the appropriate pressure gauges to the filter separator to read 'inlet as well outlet pressure or differential pressure drop across the filter.</p> <p><b>11.0 ELEMENT SPIDER</b> The free ends of all elements, regardless of mounting assembly, shall be supported firmly to minimize vibration. This can be accomplished by using an element spider to join the elements together and stabilizing the spider</p>



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		<p>against the vessel wall. The method of stabilization such as bolting to a clip on the vessel wall, shall assure an electrical bond between the spider and vessel. Element locating devices shall be provided in the spider to support slightly misaligned elements securely without causing unnecessary strain.</p> <p><b>12.0 CLEAN OUT / INSPECTION CONNECTION</b> The filter shall be provided with clean out / Inspection connection for easy removal &amp; replacement of filter element during maintenance. The diameter of door shall be same as that of filter vessel diameter unless otherwise specified. The closure shall be equipped with locking device which can be opened only when the vessel is completely de-pressurized. Alternatively, swing bolts with pin arrangement shall be provided for the closure. The swing bolts shall be of one-piece construction without welding. Hinge pins shall be forged and of the same material as the swing bolts.</p> <p>A davit / hinged arrangement shall be provided for the closure for convenient handling. The closure shall have perfect sealing arrangement to prevent leakage.</p> <p><b>13.0</b> Any other item required to be provided as per good engineering practice shall be provided by fabricator / Bidder.</p>



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Clause	Area	Description																																										
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7.0	Accessories & Spare	<p>1) All hardware like nuts, bolts, threaded rod, washers, valves, PSV, DRDP, Differential Pressure Transmitter, Air eliminator, drain, foundation bolts and all other accessories to ensure complete installation, commissioning and operation of filter separator shall be provided along with filter casings.</p> <p>a) SS Ball valve having sealing arrangement with SS pipe, dust cap, chain to be fitted on top for venting (Approved makes of ball valve - Audco / Armstrong / Virgo)</p> <p>b) SS 304 Drain pipe with Spring Loaded valve and screw type SS pipe, dust cap, chain and crocodile clip (Approved make of spring-loaded Valve- APOLLO)</p> <p>c) SS 304 Sampling line with spring loaded valve and screw type ball valve (Approved make of spring-loaded Valve- APOLLO)</p> <p>d) 1 No Auto Air Eliminator with isolation valve. (Approved Make - Gammon/ Armstrong)</p> <p>e) 1 No Pressure Release Valve with isolation valve. (Approved Make - Gammon/ Armstrong)</p> <p>f) 1 No Pressure Differential Gauge [Range 0-30 PSI] with graduation in 1 PSI having least count of 1 PSI. The max working pressure of the gauge will be 150 PSI. PD gauge shall have online testing/calibration arrangement. Inlet &amp; outlet shall also have SS quick acting couplers for Millipore testing. The gauge &amp; coupler will be fitted on the panel. (Approved Make of PD gauge - Gammon)</p> <p>g) 1 No. Differential Pressure Transmitter with suitable IP rating shall be provided in order to integrate the pressure readings with existing PLC Panel.</p> <p>h) Foundation Bolts, Nuts, Washers (Mild Steel M16 250 mm Long X 4 Nos Anchor Bolts) shall be supplied by bidder. screwed dust cap &amp; chain</p> <p>i) 2 No's of 1/4" SS 304 quick coupler [single shut off] with Viton seal of shall be supplied and fitted with each pressure gauge. Both male &amp; female parts will be supplied. (Approved Make - KAZAF).</p> <p>j) Inspection Hatch min of 150 mm Dia. [removable access opening covers] with suitable blind flange to permit cleaning of the interior of the vessel</p> <p>k) The front cover shall have proper arrangement for easy opening and moving during maintenance of Micro Filter</p> <p>l) Provision for Millipore facility at the delivery side of the filter vessel shall be provided.</p> <p>2) 2 sets of spare Gaskets for each vessel (In addition to the installed Gaskets).</p> <p>3) Supply of 2 set of filter elements for each vessel (1 set for installation in vessel and 1 spare set).</p>



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8.0	Special Precautions	<p>a. Painting should be done only after completion of hydrostatic test and paint shade shall be approved by the Owner in advance prior to painting works.</p> <p>b. Cartridge plates should be given a smooth finish to remove any surface irregularities. Cartridge plates for filter elements will be made with the help of proper jigs and fixtures. Fitment of bushes on the cartridge plates should also be done with proper jigs and fixtures. In addition to necessary inspection / checks, following specific checks will be done:</p> <ul style="list-style-type: none"> <li>i. Bushes should have collar and be welded to cartridge plate so as to conform to drawing and no other procedure should be resorted to for fitment of bushes.</li> <li>ii. The cartridge rod will be fitted on the bush and check will be made to see that the rod remains at right angle to the cartridge plate.</li> <li>iii. Special gauges will be provided by the fabricator for checking the co-centricity of all diameters of the Bush &amp; End Cap.</li> </ul>
9.0	Performance	<ol style="list-style-type: none"> <li>1. The Bidder shall carry out testing of filter separator elements as per “single element tests” to determine the performance of offered filter separator elements. All tests are to be conducted either at in-house facilities of manufacturer or at an independent laboratory.</li> <li>2. All the necessary arrangements for inspection / testing of the filter elements including spare filters of same type, model as offered and required fuel will have to be made by the Bidder / Supplier. No extra payments shall be made for this. The performance test will be witnessed by DAFFPL and / or TPI representative.</li> <li>3. QAP and detailed procedure of testing filter separator elements to be furnished as part of design document for owner’s approval.</li> <li>4. If the testing is carried outside India, then the performance testing is to be witnessed by reputed TPI/Owner’s representative. Cost for such inspection shall be in Bidder scope. Before engagement of TPI, Bidder shall take approval from owner.</li> <li>5. Alternatively, Bidder may produce a Certificate of Conformance (COC) along with authenticated backup document for selection of the type, model, number and size of filter cartridge from their respective Element manufacturer together with all supporting documents / catalogues / etc. during detail engineering. Same shall be subject for drawing to reviews / approval by DAFFPL / Owner. This is mandatory requirement submission and drawings shall not be reviewed without these documents.</li> </ol>



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<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>All stage inspections shall be carried out by TPI engaged by the Bidder for EN 10204 3.2 Certification. Name of TPI shall be approved by Owner. Cost of the equipment shall be inclusive of all necessary inspection charges.</li> <li>Final inspections (Sl. No. 7 onwards) shall be carried out by Owner and / or TPI (third party Inspection) as per owner's discretion.</li> <li>Bidder should give 3 weeks' advance notice for Inspection.</li> <li>R - Review, W - Witness.</li> </ol>																																																		



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11.0	<b>Marking &amp; Name Plate</b>	<ol style="list-style-type: none"> <li>1. All inlet, Outlet and Sump Drain connections shall be permanently marked as per relevant EI Standards.</li> <li>2. A stainless steel or non-ferrous metal name plate shall be securely attached to the vessel properly as per relevant EI guidelines. The name plate shall include the information as below:               <ol style="list-style-type: none"> <li>a. Manufactures name and address.</li> <li>b. Vessel's serial number and model number.</li> <li>c. Date of Manufacture.</li> <li>d. Design code of the vessel.</li> <li>e. Design pressure and test pressure of the vessel.</li> <li>f. Empty Weight of the equipment.</li> <li>g. The sump volume.</li> <li>h. The Vessel cover gasket material and part number.</li> <li>i. No. of elements and their make / Model No.</li> <li>j. Vessel's rated flow capacity.</li> <li>k. Recommended pressure differential for change of elements.</li> <li>l. Any other pertinent data required for operation and maintenance.</li> </ol> </li> </ol>		
12.0	<b>Surface Preparation and Painting</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>All external and Internal surfaces of the vessel and appurtenances, support etc. shall be shot blast cleaned after all tests as per standard practice.</p> <p>Shot blasting to SA 2.5 &amp; Painting as per EI 1541.</p> <p><i><u>Paint shade Approval shall be obtained by Bidder prior to Internal and External Painting.</u></i></p> </td> <td style="width: 50%; vertical-align: top;"> <p><b><u>External Painting</u></b></p> <ol style="list-style-type: none"> <li>1. One coat of Ethyl Zinc Silicate Primer to a dry film thickness of minimum 60 MICRON.</li> <li>2. One coat of epoxy high build MID intermediate paint to a dry film thickness of 100 microns.</li> <li>3. 2 coats of poly urethane aluminium paint (30 microns per Coat).</li> </ol> <p>TOTAL DFT - 220-micron minimum.</p> <hr/> <p><b><u>Internal Painting</u></b></p> <ol style="list-style-type: none"> <li>1. One coat of epoxy zinc phosphate primer to a dry film thickness of minimum 30 MICRON.</li> <li>2. Two coat of epoxy high build finish paint to a dry film thickness of 100 microns per coat with light white / grey / dark grey shades for the first and second coat respectively.</li> </ol> <p>TOTAL DFT - 230-micron minimum</p> </td> </tr> </table>	<p>All external and Internal surfaces of the vessel and appurtenances, support etc. shall be shot blast cleaned after all tests as per standard practice.</p> <p>Shot blasting to SA 2.5 &amp; Painting as per EI 1541.</p> <p><i><u>Paint shade Approval shall be obtained by Bidder prior to Internal and External Painting.</u></i></p>	<p><b><u>External Painting</u></b></p> <ol style="list-style-type: none"> <li>1. One coat of Ethyl Zinc Silicate Primer to a dry film thickness of minimum 60 MICRON.</li> <li>2. One coat of epoxy high build MID intermediate paint to a dry film thickness of 100 microns.</li> <li>3. 2 coats of poly urethane aluminium paint (30 microns per Coat).</li> </ol> <p>TOTAL DFT - 220-micron minimum.</p> <hr/> <p><b><u>Internal Painting</u></b></p> <ol style="list-style-type: none"> <li>1. One coat of epoxy zinc phosphate primer to a dry film thickness of minimum 30 MICRON.</li> <li>2. Two coat of epoxy high build finish paint to a dry film thickness of 100 microns per coat with light white / grey / dark grey shades for the first and second coat respectively.</li> </ol> <p>TOTAL DFT - 230-micron minimum</p>
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13.0	Documentation	<p><b>1. Submission of following Documents along with Bid.</b></p> <ul style="list-style-type: none"> <li>a. Signed Specification and specific requirement of the Project as a token of acceptance to the specification.</li> <li>b. Signed undertaking that the product is suitable according to service criteria mentioned above &amp; performance or product life or accessories functioning will not be affected by the service conditions.</li> <li>c. Bidder Qualification Documents (BQC) as per specific requirement of the project.</li> <li>d. Filled in datasheet as per Annexure - B.</li> <li>e. General arrangement drawing indicating size of the vessel and cross-sectional drawing showing the arrangement and inter distances between elements of Pre filter and separator filter vessel, duly stamped and signed by original element (cartridge) manufacturer.</li> <li>f. Design calculation of filter separator vessel, material selection and thickness of major components.</li> <li>g. Design calculation for selection of micron element, i.e., No. of elements, size, make, model, filtration efficiency, etc.</li> <li>h. Bill of Material and Material of conformity.</li> <li>i. Cross sectional and dimensional drawing of micron filter cartridge.</li> <li>j. Bidder shall have their own API/EI certification or a valid license from EI certified manufacturers for manufacturing / fabricating the FWS / MF vessel. Bidder shall submit the either copy of their own EI certificate or authorization from EI certified manufacturers along with Technical bid as per EI 1596.</li> <li>k. Bidder shall submit certified copy from manufacturer that the vessel is manufactured as per design standards EI 1590 for Micro Filter.</li> </ul> <p><b>2. After Placement of Purchase Order within 15 days.</b></p> <ul style="list-style-type: none"> <li>a. General arrangement, cross sectional and Dimensional drawing of the pre filter and separator filter vessel.</li> <li>b. Design calculation for selection of micron element and separator elements (if applicable) i.e., No. of elements, size, make, model, filtration efficiency etc.</li> <li>c. General arrangement drawing indicating size of the vessel and cross-sectional drawing showing the arrangement and inter distances between elements of Pre filter and separator filter vessel, duly stamped and signed by original element (cartridge) manufacturer.</li> </ul>



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		<p>d. Drawing of vessel internals, dimensions, orientation (arrangement) of elements and spacing between elements duly certified by the element manufacturer.</p> <p>e. Bill of Material &amp; Material of conformity.</p> <p>f. Complete Design calculation of filter separator vessel.</p> <p>g. Cross sectional and dimensional drawing of micron filter element</p> <p>h. Inlet to outlet pressure drop calculations.</p> <p>i. PRV / selection criteria along with calculations.</p> <p>j. Design calculation, datasheet, drawings of inspection door.</p> <p>k. Davit arm / hinge door details.</p> <p>l. Mechanical Ball and Float Arrangement far automatic draining from sump of vessel.</p> <p>m. Cartridge holding tie rod details.</p> <p>n. Painting procedure.</p> <p>o. Welding, heat treatment and testing procedure.</p> <p>p. Quality Assurance Plan.</p> <p>q. Drawing indicating locations where radiography shall be carried out for vessel.</p> <p>r. Design calculation and Details of saddle support, including dimensions and distances.</p> <p>s. Duly filled enclosed data sheet.</p> <p>t. Approval for all accessories and their mounting methodology.</p> <p><b>Installation, operation, and maintenance instructions / manuals.</b></p> <p><b>3. After Inspection, for Dispatch Clearance</b></p> <p>a. Inspection reports, inspection release note and packing list.</p> <p>b. All other documents as per approved QAP / ITP, approved drawings and technical specification.</p> <p><b>4. Along with dispatch (In 6 sets and pen drive - 3 nos.)</b></p> <p>a. Inspection reports, inspection release note and packing list</p> <p>b. All other documents as per approved QAP / ITP, approved drawings and technical spec07-10ification.</p> <p>c. Installation, operation, and maintenance instructions / manuals.</p>



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Clause	Area	Description
14.0	Packing & Delivery	<p>a. Prior to shipments, Wooden Blocks of sufficient heights will be bolted to base mounting plates of filter casing so that sump and its fitment do not foul with the ground. Wooden blocks provided should be strong enough to withstand road / rail transportation.</p> <p>b. The filter elements shall be individually packed in a polyethylene bag and then in a paper carton in order to protect from contamination by dirt and moisture. Each master carton also individually protected by means of polyethylene or similar wrapping. The packing shall be strong and efficient enough to ensure safe perseverance up to the final point of destination.</p> <p>c. Attachments, spare parts of the equipment and small items shall be packed separately in wooden cases. Each item shall be appropriately tagged with identification of main equipment and reference number of the assembly drawing.</p> <p>d. Detailed packing list in water-proof envelope shall be inserted in the package together with equipment.</p> <p>e. Each equipment shall have an identification plate giving equipment data, make, year of manufacture, equipment number, name of manufacture.</p> <p>f. All valves shall be provided with suitable protectors for flange faces, securely attached to the valves. Bevel ends shall be protected with metallic or high impact plastic bevel protectors.</p> <p>g. All threaded and machined surfaces subject to corrosion shall be well protected by a coat of grease or other suitable material.</p> <p>h. The packaging shall be weatherproof as the packaged material shall be stored in open area at owner's facility.</p> <p>i. The packaged equipment shall be placed at any location at owner's facility (DAFFPL) as directed by owner's representative. This is deemed inclusive in bidder's scope and no extra payment shall be made towards it.</p> <p>j. The Bidder shall be held liable for all damages / losses due to the defective or insufficient packing.</p> <p>k. The Bidder shall supply the complete assembled and tested Micro Filter with all accessories to Owner Premises. Unloading of supplied Micro Filter and its accessories at Owners Premises at designated place (As directed by Engineer In charge/Owner's Representative) is inclusive &amp; within the Scope of work for Bidder. All components / consumables used shall be new, State of The Art and of current manufacture.</p> <p>l. Micro Filter and components must be stored as instructed by Owner Engineer in charge in Owner's Fuel Farm Premises. Interim storage of filter vessels shall be in open area at owner's premises however, weatherproof packing to be done by the bidder.</p>



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Clause	Area	Description
15.0	Documents required	<p><b><u>Documents required to be submitted along with the Technical Bid:</u></b></p> <ul style="list-style-type: none"> <li>a. Signed Specification and specific requirement of the Project as a token of acceptance to the specification.</li> <li>b. Signed undertaking that the product is suitable according to service criteria mentioned above &amp; performance or product life or accessories functioning will not be affected by the service conditions.</li> <li>c. Bidder Qualification Documents (BQC) as per specific requirement of the project.</li> <li>d. Filled in and signed datasheet as per Annexure - B.</li> <li>e. General arrangement drawing indicating size of the vessel and cross-sectional drawing showing the arrangement and inter distances between elements of Pre filter and separator filter vessel, duly stamped and signed by original element (cartridge) manufacturer.</li> <li>f. Licensor’s approved GA drawing or Vessel or Datasheet of Vessel.</li> <li>g. Signed copy of Scope of Inspection.</li> <li>h. Design calculation of filter separator vessel, material selection and thickness of major components.</li> <li>i. Design calculation for selection of micron element, i.e., No. of elements, size, make, model, filtration efficiency, etc.</li> <li>j. Bill of Material and Material of conformity.</li> <li>k. Cross sectional and dimensional drawing of micron filter cartridge.</li> <li>l. Bidder shall have their own API/EI certification or a valid license from EI certified manufacturers for manufacturing / fabricating the FWS / MF vessel. Bidder shall submit the either copy of their own EI certificate or authorization from EI certified manufacturers along with Technical bid as per EI 1596.</li> <li>m. Bidder shall submit certified copy from manufacturer that the vessel is manufactured as per design standards EI 1590 for Micro Filter.</li> </ul> <p><b><u>Documents required to be submitted prior to dispatch of Micro Filter:</u></b></p> <ul style="list-style-type: none"> <li>a) Test Certificates as per approved QAP</li> <li>b) NDT Report</li> <li>c) Hydro test Report</li> <li>d) As Built Drawings</li> <li>e) Inspection Release Note by TPIA</li> <li>f) Installation Manual</li> <li>g) Inspection &amp; Maintenance manual</li> </ul>



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## ANNEXURE -B

# PROCESS DATASHEET FOR MICRO FILTER

Rev	Date	Description	Prepared	Reviewed	Approved	Client Review
0	10-10-2021	Issued for Tender	 DR	 AP	 SKJ	

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## PROCESS DATA SHEET FOR MICROFILTER SEPARATORS

### A. GENERAL



<b>Location</b>	New ATF Receipt Header (From IOC Bijwasan)
<b>Petroleum Class</b>	Zone 1, Group IIA, Temperature Class T3
<b>Vessel Design Code</b>	Micro Filter complying with specification EI 1590 and designed as per EI 1596 and ASME Code Sec. VIII Div. I latest edition.
<b>Flowrate</b>	570 to 600 KL/hr
<b>Type of Filter Element</b>	Micron Filter Elements
<b>Switchover (None / Auto / Manual)</b>	Manual
<b>Switchover by time / Differential Pressure</b>	Change Out Differential Pressure 1.5 kg/cn2.
<b>PMC Design / Bidder Design</b>	Vendor / Bidder Design & Package
<b>Surface Treatment</b>	Required
<b>Ext. Fire</b>	Yes
<b>Quantity</b>	2 Nos.

### B. FLUID DATA

Product handled - Solid / Liquid / Gas	Liquid
Product Fluid Handled	ATF
Liquid Density @15 °C Kg/m <sup>3</sup>	840
Liquid Viscosity @15 °C cSt	2.1
Corrosive / erosive due to	Water
Flammable / Explosive / Toxic	Flammable
Source of liquid / drop / mist	Water

### C. CAPACITY FILTERATION

Normal Flow rate m <sup>3</sup> /hr.	570 to 600 KL/hr
Filtration ≥ Size > Efficiency	5 - Micron
Max. allowable outlet liquid entrainment	5 - Micron

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#### D. OPERATING CONDITION

Rated Inlet pressure kg/cm <sup>2</sup>	15 kg/cm <sup>2</sup>
Max. Pressure Drop (fouled at RF)	1.5 kg/cm <sup>2</sup>
Inlet Pressure kg/cm <sup>2</sup>	15 kg/cm <sup>2</sup>
Rated Flow m <sup>3</sup> /hr. (Max / Nominal / Minimal)	570 to 600 KL/hr
% Relative Humidity Min/Max	98%

#### E. DESIGN & CONSTRUCTION DATA

Design Type	N.A
Body Alignment	Bidder to propose
Design Pressure kg/cm <sup>2</sup>	As per ASME B31.3
Design Temperature °C	As per standard temperature mentioned in EI 1596
Max. Diff. Pressure to withstand Relief case, Valve Set Pressure kg/cm <sup>2</sup>	Bidder to Specify
Test Pressure @ Ambient temperature	As per ASME Sec VIII
MOC of Body	Carbon Steel
Corrosion Allowance in mm	1.5
Basic MOC / Element / Holder	SA 516 Gr 60/70
Radiography	Required
Filter Element	EI 1590
Filter Element Mounting assembly	As per EI 1590
Internal Lining	Required Epoxy Lining According to EI 1541
External Coating	Required
Water Drain	Required
Pressure Relief valve	Required
Air Eliminator	Required
Elements Withdrawal End	From Top Manual withdrawal
Supports	Integral with Vessel- Leg Type
Oil Pressure Tapping's	Required



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#### F. VENDOR / BIDDER DATA REQUIRED BY PROCESS

Actual Pressure Drop / Clean and Part Fouled / No of Element / Element Model No. / Element Life / Spare Element Provided / Total Filter Area / Coalescers OD & Length / Separators OD & length / Solid / Holding Capacity / Pr. Relief Valve Details / Dimensions & Weight / Cleaning Cycle Details / Operating Instructions / Calculations for Approvals / Element Length / Arrangement Drawing / Element Removal / Space Requirement, Filtration Efficiency, Element filtered details, Torque requirement septum plate details etc.		
Nozzle No.	Nozzle Description	Size
N1	Inlet	10"
N2	Outlet	10"
N3	Pr. Relief Valve	3/4"
N4	Air Eliminator	3/4"
N5	Vent Valve	3/4"
N6 A / B	Inlet / Outlet bottom Drain	1"
N7 A / B	PDI / PDT	1/4"
N8 A / B	Level Transmitter	*
N9 A / B	Level Transmitter & Indicator	*
Inlet / Outlet	Millipore Point	3/4"

- 1) \* Bidder to provide / confirm.
- 2) The Size of Nozzles and Pressure Ratings/ Pipe Class will be decided on the basis of design pressure of vessel and the final design of Micro Filter shall be subjected to approval from Owner.

#### G. ITEMS TO BE PROVIDED BY VENDOR / BIDDER

a.	Micron Filter Element
b.	Flat Base micron filter element
c.	Millipore Adapters
d.	Pressure differential gauge and Differential Pressure Transmitter with tubing

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## H. SPECIAL REQUIREMENTS & NOTE

Sr. No.	Special Requirement / Note
1.	The Micro Filter shown in Data Sheet is used to remove entrained water particles from ATF.
2.	Minimum Hydrostatic Pressure to be As per ASME Sec VIII
3.	Flanged cover with 'O' ring gasket for manual removal of filter elements to be provided and cover to be supported by an integral davit.
5.	Earthing Lugs to be provided for Micro Filter assembly.
6.	Filter shall be designed to filter solids, dirt's. Elements shall be as per EI 1590 Latest Edition. The Filter Efficiency for Micro Filter Should be 5 Micron
7.	Shall be designed to withstand a differential pressure in the direction of normal flow of 1.5 kg/cn2 and also hydro tested as per code whilst blanking off the individual element outlet orifices
8.	Shall have provision of differential pressure gauge.
9.	Shall have provision of Differential Pressure Transmitter
10.	Shall have provision of inlet/ outlet / bottom sampling line with isolation valve
11.	Visio flow indicator & Field Alarm in the event of high differential pressure across filters.
12.	Potential free contacts be provided so that connection can be taken to control room as well.
13.	<b>Other Provision</b>
	a) Water Level Indicator - Mechanical Type is Required
	b) Third party inspection Agency - Required
	c) Party to provide typical drawing of the Micro Filter
	d) QAP to be submitted by the Bidder.
	e) EI 1590 standards of latest edition to be followed wherever any of the requirements is not stated above
	f) Bidder shall either have EI Certification or License from Principal EI Manufacturer / Fabricator of the Micro Filter and its Elements to fabricate



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**ANNEXURE -C**  
**SPECIFICATION FOR FILTER WATER SEPARATOR**

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<b>Rev</b>	<b>Date</b>	<b>Description</b>	<b>Prepared</b>	<b>Reviewed</b>	<b>Approved</b>	<b>Client Review</b>

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### SPECIFICATION FOR FILTER WATER SEPARATOR

Clause	Area	Description
1.0	General	<b>Supply of Filter Water Separator</b> <ul style="list-style-type: none"> <li>• Filter water separator with accessories as per attached Specifications and datasheet of Filter water separator.</li> </ul>
2.0	Scope	<ol style="list-style-type: none"> <li>1. This specification covers the minimum requirements for design, engineering, Preparation of fabrication drawings, manufacturing, inspection, testing and supply of Filter Water separator complete with supports and all other accessories and appurtenances including all filter cartridges.  Each vessel assembly to be supplied with pressure safety valve (PSV), direct reading differential pressure gauge (DRDP) with 3-way valve on downstream side, Differential Pressure Transmitter, water level indicator, check valve, vent, automatic air eliminator, drain sump and sample traps with isolation valves etc. and other provisions as per specification and manufacturer's standard practice.</li> <li>2. Supply of 3 sets of spare cover Gaskets for each vessel (1 installed + 2 Spare).</li> <li>3. Supply of 2 set of filter elements for each vessel (1 set for installation in vessel and 1 spare set).</li> </ol>
3.0	Service	<ol style="list-style-type: none"> <li>1. <b>Product:</b> Jet A1 ATF</li> <li>2. <b>Installation:</b> Unprotected/open area &amp; outdoor service.</li> <li>3. <b>Operation Time:</b> Continuous service.</li> <li>4. <b>Temperature Range:</b> As per standard temperature mentioned in EI 1596</li> <li>5. <b>Relative Humidity:</b> Up to 98% during Monsoon.</li> <li>6. <b>Rainfall:</b> Moderate to heavy rainfall during Monsoon.</li> </ol>



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Clause	Area	Description
4.0	Codes and Standard	<ol style="list-style-type: none"> <li>1. EI 1596: Design and construction of Aviation Fuel Filter Vessel.</li> <li>2. EI 1581: Specifications and laboratory qualification procedures for aviation fuel filter / water Separator</li> <li>3. EI 1541: Performance requirements for protective coating systems used in aviation fuel storage tanks and piping</li> <li>4. EI 1582: Specification for similarity for EI 1581 aviation jet fuel filter/separators</li> <li>5. ASME B 16.25: Butt welding ends.</li> <li>6. ASME B 16.47 Series - A: for sizes 22" and sizes ranging from 26" - 36".</li> <li>7. ASME B 16.5: Pipe Flanges and Flanged Fitting: NPS 1/2" to 24" except 22".</li> <li>8. ASME B 16.47 Series B: For size above 36".</li> <li>9. ASME B 16.9: Factory-made wrought butt-welding fittings.</li> <li>10. ASME B 31.3: Process Piping.</li> <li>11. ASME B 31.4: Pipeline Transportation System for Hydrocarbons and Other Liquids.</li> <li>12. ASME B 16.34 - Valves: Flanged, Threaded and Welding Ends.</li> <li>13. ASME Sec II to IX: Boiler and Pressure Vessel Code.</li> <li>14. SSPC-VIS-1-Steel Structures Painting Council Visual Standard.</li> <li>15. ISO 8501-1, 515 055900: Rust grades and preparation of uncoated steel substrates.</li> <li>16. ANSI SEC II &amp; ASTM: Material Specifications.</li> </ol> <p><b>Note:</b> Other international standards may also be accepted subject to their being equivalent or superior with prior approval of the owner. For provisions not covered by the above codes and standards, relevant applicable codes, best engineering practices and norms shall govern. All Codes / Standards, wherever specified in this document, shall mean the latest edition of that Code/ Standard applicable as on the date of Notice Inviting tender.</p>
5.0	Design and Construction	<p><b>1.0 VESSEL</b></p> <ol style="list-style-type: none"> <li>a) Filter vessels shall be designed and constructed in accordance with EI 1596 Latest Edition and ASME Code Sec. VIII Div. I latest edition and pressure vessel code or with equivalent.</li> <li>b) Corrosion allowance of 1.5 mm shall be considered for all carbon steel parts, unless otherwise mentioned in the data sheets.</li> <li>c) The Filter Water Separator assembly shall have capacity to handle flow rate as indicated in Material Requisition and Design Data of the project.</li> <li>d) Material of construction shall be ASTM A 516 or equivalent or superior.</li> </ol>



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Clause	Area	Description
		<p>e) Filter assembly shall be designed for a working pressure of ANSI 150#.</p> <p>f) The inlet and outlet nozzle connections shall be 10” ANSI 150#. The branch connections shall be reinforced with saddle plates. The flanges shall conform to ANSI B 16.5 latest edition (for sizes ½” to 24” except 22”) and ASME B 16.47 (Series - A: For sizes 22”, 24” to 36” Series - B: For sizes more than 36”). It shall be of Weld Neck raised face type.</p> <p>g) To permit access to the far end of the vessel for maintenance purpose, the vessel’s length (L) to diameter (D) ratio shall be limited by the following expression:</p> <p>h) For Vessel ≤ 24-inch Diameter: <math>L / D \leq 1.75</math>.</p> <p>i) For Vessel &gt; 24-inch Diameter: <math>L / D \leq 2.5</math>.</p> <p>j) Bidder to ensure proper flow distribution to utilize the full cartridge area available for filtration. Under no circumstances, the inlet fluid shall be allowed to directly impinge on the cartridge element.</p> <p>k) Nozzle / davit / vessel support / door orientation shall be as per approved orientation drawing to be released at post order stage.</p> <p>l) Filter vessel support length shall be decided during detailed engineering based on actual layout requirement &amp; approval for same shall be taken from owner.</p> <p>m) Vessel diameter shall be at least two times inlet nozzle diameter.</p> <p>n) Vessels shall be post weld heat treated whenever it is required due to service requirement or due to code requirement. Vessel shall be post weld heat treated as a complete unit and no welding shall be permitted once the PWHT is performed.</p> <p>o) Each vessel shall be hydro tested as per ASME Sec VIII</p> <p><b>2.0 FILTER ELEMENT (CARTRIDGE)</b></p> <p><b>2.1 General (For all Type of Cartridge)</b></p> <p>a) The cartridge assembly shall have capacity to handle flow rate as indicated in Material Requisition and Design Data of project.</p> <p>b) Cartridge assembly shall able to achieve desired outlet quality for the product to be handled as mentioned in the specific requirement of the project.</p> <p>c) The cartridges / elements shall be of PECO-FACET / PARKER / FAUDI / VELCON make only.</p>



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Clause	Area	Description
		<p>d) Size, type, model and number of elements shall be selected based on the supplier recommendations. Recommendation sheet should be stamped and signed by original element (cartridge) manufacturer.</p> <p>e) Internal cross section, showing the arrangement and inter distances between elements shall also be stamped and signed by original element (cartridge) manufacturer.</p> <p>f) The filter elements and the element sealing device shall be capable of withstanding a differential pressure as per EI 1581 (latest edition) without rupture, bypassing of seals, or the emergence of pinhole leaks. The maximum differential pressure (bursting pressure) shall be stated by the bidder.</p> <p>g) Maximum permissible pressure drop is 1.5 Kg/cm<sup>2</sup> through the clean filter cartridges. The manufacturer shall state the average differential pressure across a new clean element operating at the flow rate mentioned in the Material Requisition, Specifications, Datasheet and Design Data of the project.</p> <p>h) The cartridge shall be of single piece construction, with no joints.</p> <p><b>2.2 Filter Element</b></p> <p>a. Filter Separator vessel shall be designed to give acceptable performance with 1% water content in the inlet fluid.</p> <p>b. Filter water separator (Coalescer + Separator) should be capable to hold any water exceeding 30-PPMV.</p> <p>c. Water content at outlet of Filter water separator shall be maximum 30-PPMV</p> <p>d. The Filter water separator shall be suitable for pressure drop up to a differential pressure of 1.5 kg/cm<sup>2</sup> without affecting the performance of the element.</p> <p>e. Pressure drop across Filter water separator in clean condition shall be as per API 1581.</p> <p><b>3.0 VENT AND PRESSURE RELIEF TAPS</b></p> <p>Every Filter Casing shall be provided with a tap for a pressure relief valve to relieve thermal expansion of the fuel. A connection for an air eliminator shall be provided at the highest fuel flow point in the vessel. Supply of PSV and suitable valve in the vent line are under the scope of Bidder.</p> <p><b>4.0 DRAIN &amp; SAMPLE TAPS</b></p> <p>Drain Sump will be provided on the main shell of the filter casing at the lowest level which will have an elbow of 1" size having 1" BSP female</p>





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Clause	Area	Description
		<p>threads fitted. Two sockets and plugs of stainless steel will be provided (one on the lowest point and one on the highest point) on the inlet chamber of the filter casing. Two number of sockets and plugs of stainless steel along with Teflon seals will also be provided (one on the lowest point and one on the highest point) on the outlet chamber. These sockets and plugs will have 1” BSP threads. The drain and sample traps shall be provided with a suitable double isolation valve.</p> <p><b>5.0 AIR ELIMINATOR</b> Each filter shall be fitted with an Air Eliminator for automatically venting trapped air from the top of the vessel. isolation valve (lock open) shall also be provided at the inlet of air eliminator.</p> <p><b>6.0 PRESSURE RELIEF VALVE</b> Each filter shall be fitted with a pressure relief valve to ensure that the design working pressure of the vessel is never exceeded. Isolation valve (Lock open) shall also be provided at the inlet of Pressure relief valve.</p> <p><b>7.0 SPACING OF ELEMENTS</b> Touching of elements to each other or the shell of filter casing must be avoided. There shall be adequate space available between filters for removal / replacement of filters. The layout of element in the vessel shall provide a minimum clearance of 13 mm between element and vessel wall. No surface shall be closure than 7 mm from the surface of another element. Fabricator must be able to provide testing for proper spacing during inspection / testing.</p> <p><b>8.0 GASKETS</b> All gaskets must be of Viton-A or Buna-N or equivalent material. Cork or rubber impregnated cork gaskets and gasket containing asbestos shall not be used.</p> <p><b>9.0 END DISHES</b> End Dishes will be given shape by hydraulic press and not by hammering. Dished ends shall be of seamless construction, tori spherical or 2:1 ellipsoidal type and shall be heat treated after forming as per ASME Sec VIII Div. 1. All end dishes should be offered for inspection.</p>



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		<p><b>10.0 PRESSURE TAPS</b> Pressure taps / connection shall be provided to connect the appropriate pressure gauges to the filter separator to read 'inlet as well outlet pressure or differential pressure drop across the filter.</p> <p><b>11.0 ELEMENT SPIDER</b> The free ends of all elements, regardless of mounting assembly, shall be supported firmly to minimize vibration. This can be accomplished by using an element spider to join the elements together and stabilizing the spider against the vessel wall. The method of stabilization such as bolting to a clip on the vessel wall, shall assure an electrical bond between the spider and vessel. Element locating devices shall be provided in the spider to support slightly misaligned elements securely without causing unnecessary strain.</p> <p><b>12.0 CLEAN OUT / INSPECTION CONNECTION</b> The filter shall be provided with clean out / Inspection connection for easy removal &amp; replacement of filter element during maintenance. The diameter of door shall be same as that of filter vessel diameter unless otherwise specified. The closure shall be equipped with locking device which can be opened only when the vessel is completely de-pressurized. Alternatively, swing bolts with pin arrangement shall be provided for the closure. The swing bolts shall be of one-piece construction without welding. Hinge pins shall be forged and of the same material as the swing bolts.</p> <p>A davit / hinged arrangement shall be provided for the closure for convenient handling. The closure shall have perfect sealing arrangement to prevent leakage.</p> <p><b>13.0</b> Any other item required to be provided as per good engineering practice shall be provided by fabricator / Bidder.</p>



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7.0	Accessories & Spare	<p>a. All hardware like nuts, bolts, threaded rod, washers, valves, PSV, DRDP, Differential Pressure Transmitter, Air eliminator, drain, foundation bolts and all other accessories to ensure complete installation, commissioning and operation of filter separator shall be provided along with filter casings.</p> <p>b. SS Ball valve having sealing arrangement with SS pipe, dust cap, chain to be fitted on top for venting (Approved makes of ball valve - Audco / Armstrong / Virgo)</p> <p>c. SS 304 Drain pipe with Spring Loaded valve and screw type SS pipe, dust cap, chain and crocodile clip (Approved make of spring-loaded Valve- APOLLO)</p> <p>d. SS 304 Sampling line with spring loaded valve and screw type ball valve (Approved make of spring-loaded Valve- APOLLO)</p> <p>e. 1 No Auto Air Eliminator with isolation valve. (Approved Make - Gammon/ Armstrong)</p> <p>f. 1 No Pressure Release Valve with isolation valve. (Approved Make - Gammon/ Armstrong)</p> <p>g. 1 No Pressure Differential Gauge [Range 0-30 PSI] with graduation in 1 PSI having least count of 1 PSI. The max working pressure of the gauge will be 150 PSI. PD gauge shall have online testing/calibration arrangement. Inlet &amp; outlet shall also have SS quick acting couplers for Millipore testing. The gauge &amp; coupler will be fitted on the panel. (Approved Make of PD gauge - Gammon)</p> <p>h. 1 No. Differential Pressure Transmitter with suitable IP rating shall be provided in order to integrate the pressure readings with existing PLC Panel.</p> <p>i. Foundation Bolts, Nuts, Washers (Mild Steel M16 250 mm Long X 4 Nos Anchor Bolts) shall be supplied by bidder. screwed dust cap &amp; chain</p> <p>j. 2 No's of 1/4" SS 304 quick coupler [single shut off] with Viton seal of shall be supplied and fitted with each pressure gauge. Both male &amp; female parts will be supplied.</p> <p>k. Inspection Hatch min of 150 mm Dia. [removable access opening covers] with suitable blind flange to permit cleaning of the interior of the vessel</p> <p>l. The front cover shall have proper arrangement for easy opening and moving during maintenance of Filter Water Separator.</p> <p>m. Provision for Millipore facility at the delivery side of the filter vessel shall be provided.</p> <p>2. 2 sets of spare Gaskets for each vessel (In addition to the installed Gaskets).</p> <p>3. Supply of 2 set of filter elements for each vessel (1 set for installation in vessel and 1 spare set).</p>



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8.0	Special Precautions	<p>a. Painting should be done only after completion of hydrostatic test and paint shade shall be approved by the Owner in advance prior to painting works.</p> <p>b. Cartridge plates should be given a smooth finish to remove any surface irregularities. Cartridge plates for filter elements will be made with the help of proper jigs and fixtures. Fitment of bushes on the cartridge plates should also be done with proper jigs and fixtures. In addition to necessary inspection / checks, following specific checks will be done:</p> <ul style="list-style-type: none"> <li>i. Bushes should have collar and be welded to cartridge plate so as to conform to drawing and no other procedure should be resorted to for fitment of bushes.</li> <li>ii. The cartridge rod will be fitted on the bush and check will be made to see that the rod remains at right angle to the cartridge plate.</li> <li>iii. Special gauges will be provided by the fabricator for checking the co-centricity of all diameters of the Bush &amp; End Cap.</li> </ul>
9.0	Performance	<ol style="list-style-type: none"> <li>1. The Bidder shall carry out testing of filter separator elements as per “single element tests” to determine the performance of offered filter separator elements. All tests are to be conducted either at in-house facilities of manufacturer or at an independent laboratory.</li> <li>2. All the necessary arrangements for inspection / testing of the filter elements including spare filters of same type, model as offered and required fuel will have to be made by the supplier. No extra payments shall be made for this. The performance test will be witnessed by DAFFPL and / or TPI representative.</li> <li>3. QAP and detailed procedure of testing filter separator elements to be furnished as part of design document for owner’s approval.</li> <li>4. If the testing is carried outside India, then the performance testing is to be witnessed by reputed TPI/Owner’s representative. Cost for such inspection shall be in Bidder scope. Before engagement of TPI, Bidder shall take approval from owner.</li> <li>5. Alternatively, Bidder may produce a Certificate of Conformance (COC) along with authenticated backup document for selection of the type, model, number and size of filter cartridge / coalescing elements / coalescing pack from their respective Element manufacturer together with all supporting documents / catalogues / etc. during detail engineering. Same shall be subject for drawing to reviews / approval by DAFFPL. This is mandatory requirement submission and drawings shall not be reviewed without this document.</li> </ol>



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10.0	Inspection and testing (Cover the minimum testing requirement)	<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Description</th> <th>TPI / DAFFPL</th> </tr> </thead> <tr> <td>1</td> <td>Material identification and review of Test Certificates - plates, pipes, QOC, flanges, forgings, fittings, fasteners, gaskets and other pressure containing parts.</td> <td>R-100%</td> </tr> <tr> <td>2</td> <td>Material identification and review of Test Certificates of non-pressure parts supports etc.</td> <td>R-100%</td> </tr> <tr> <td>3</td> <td>Micron / Separator filter element properties as per Design Data of Project, Specifications and approved data sheet.</td> <td>R-100%</td> </tr> <tr> <td>4</td> <td>NDT of weld seam (RT reports &amp; films).</td> <td>R-100%</td> </tr> <tr> <td>5</td> <td>Hydro Test Chart as applicable.</td> <td>R-100%</td> </tr> <tr> <td>6</td> <td>Chemical and Mechanical testing of vessel MOC (plates, pipes etc.).</td> <td>W-100%</td> </tr> <tr> <td>7</td> <td>Visual Dimensional final check.</td> <td>W-100%</td> </tr> <tr> <td>8</td> <td>Leak check (Air test of pads).</td> <td>W-100%</td> </tr> <tr> <td>9</td> <td>PMI Check for each component - for each heat.</td> <td>W-100%</td> </tr> <tr> <td>10</td> <td>Hydrostatic vessel test including door - 4 hour.</td> <td>W-100%</td> </tr> <tr> <td>11</td> <td>Performance testing of filter elements / Certificate of Conformance (COC).</td> <td>W-100% / R</td> </tr> <tr> <td>12</td> <td>Visual inspection of separator elements.</td> <td>W-100%</td> </tr> <tr> <td>13</td> <td>Spare's inspection.</td> <td>R-100%</td> </tr> <tr> <td>14</td> <td>Painting inspection.</td> <td>R-100%</td> </tr> <tr> <td>15</td> <td>Final stamping, review of inspection documents.</td> <td>R-100%</td> </tr> </table>	Sr. No.	Description	TPI / DAFFPL	1	Material identification and review of Test Certificates - plates, pipes, QOC, flanges, forgings, fittings, fasteners, gaskets and other pressure containing parts.	R-100%	2	Material identification and review of Test Certificates of non-pressure parts supports etc.	R-100%	3	Micron / Separator filter element properties as per Design Data of Project, Specifications and approved data sheet.	R-100%	4	NDT of weld seam (RT reports & films).	R-100%	5	Hydro Test Chart as applicable.	R-100%	6	Chemical and Mechanical testing of vessel MOC (plates, pipes etc.).	W-100%	7	Visual Dimensional final check.	W-100%	8	Leak check (Air test of pads).	W-100%	9	PMI Check for each component - for each heat.	W-100%	10	Hydrostatic vessel test including door - 4 hour.	W-100%	11	Performance testing of filter elements / Certificate of Conformance (COC).	W-100% / R	12	Visual inspection of separator elements.	W-100%	13	Spare's inspection.	R-100%	14	Painting inspection.	R-100%	15	Final stamping, review of inspection documents.	R-100%
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<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>All stage inspections shall be carried out by TPI engaged by the Bidder for EN 10204 3.2 Certification. Name of TPI shall be approved by Owner. Cost of the equipment shall be inclusive of all necessary inspection charges.</li> <li>Final inspections (Sl. No. 7 onwards) shall be carried out by Owner and / or TPI (third party Inspection) as per owner's discretion.</li> <li>Bidder should give 3 weeks' advance notice for Inspection.</li> <li>R - Review, W - Witness.</li> </ol>																																																		



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11.0	<b>Marking &amp; Name Plate</b>	<p>1. All inlet, Outlet and Sump Drain connections shall be permanently marked as per relevant EI Standards.</p> <p>2. A stainless steel or non-ferrous metal name plate shall be securely attached to the vessel properly as per relevant EI guidelines. The name plate shall include the information as below:</p> <ol style="list-style-type: none"> <li>Manufactures name and address.</li> <li>Vessel's serial number and model number.</li> <li>Date of Manufacture.</li> <li>Design code of the vessel.</li> <li>Design pressure and test pressure of the vessel.</li> <li>Empty Weight of the equipment.</li> <li>The sump volume.</li> <li>The Vessel cover gasket material and part number.</li> <li>No. of elements and their make / Model No.</li> <li>Vessel's rated flow capacity.</li> <li>Recommended pressure differential for change of elements.</li> </ol> <p>Any other pertinent data required for operation and maintenance.</p>			
12.0	<b>Surface Preparation and Painting</b>	<table border="1"> <tr> <td rowspan="2"> <p>All external and Internal surfaces of the vessel and appurtenances, support etc. shall be shot blast cleaned after all tests as per standard practice.</p> <p>Shot blasting to SA 2.5 &amp; Painting as per EI 1541.</p> <p><i>Paint shade Approval shall be obtained by Bidder prior to Internal and External Painting.</i></p> </td> <td> <p><b>External Painting</b></p> <ol style="list-style-type: none"> <li>One coat of Ethyl Zinc Silicate Primer to a dry film thickness of minimum 60 MICRON.</li> <li>One coat of epoxy high build MID intermediate paint to a dry film thickness of 100 microns.</li> <li>2 coats of poly urethane aluminium paint (30 microns per Coat).</li> </ol> <p>TOTAL DFT - 220-micron minimum.</p> </td> </tr> <tr> <td> <p><b>Internal Painting</b></p> <ol style="list-style-type: none"> <li>One coat of epoxy zinc phosphate primer to a dry film thickness of minimum 30 MICRON.</li> <li>Two coat of epoxy high build finish paint to a dry film thickness of 100 microns per coat with light white / grey / dark grey shades for the first and second coat respectively.</li> </ol> <p>TOTAL DFT - 230-micron minimum</p> </td> </tr> </table>	<p>All external and Internal surfaces of the vessel and appurtenances, support etc. shall be shot blast cleaned after all tests as per standard practice.</p> <p>Shot blasting to SA 2.5 &amp; Painting as per EI 1541.</p> <p><i>Paint shade Approval shall be obtained by Bidder prior to Internal and External Painting.</i></p>	<p><b>External Painting</b></p> <ol style="list-style-type: none"> <li>One coat of Ethyl Zinc Silicate Primer to a dry film thickness of minimum 60 MICRON.</li> <li>One coat of epoxy high build MID intermediate paint to a dry film thickness of 100 microns.</li> <li>2 coats of poly urethane aluminium paint (30 microns per Coat).</li> </ol> <p>TOTAL DFT - 220-micron minimum.</p>	<p><b>Internal Painting</b></p> <ol style="list-style-type: none"> <li>One coat of epoxy zinc phosphate primer to a dry film thickness of minimum 30 MICRON.</li> <li>Two coat of epoxy high build finish paint to a dry film thickness of 100 microns per coat with light white / grey / dark grey shades for the first and second coat respectively.</li> </ol> <p>TOTAL DFT - 230-micron minimum</p>
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13.0	Documentation	<p><b>5. Submission of following Documents along with Bid.</b></p> <ul style="list-style-type: none"> <li>a. Signed Specification and specific requirement of the Project as a token of acceptance to the specification.</li> <li>b. Signed undertaking that the product is suitable according to service criteria mentioned above &amp; performance or product life or accessories functioning will not be affected by the service conditions.</li> <li>c. Bidder Qualification Documents (BQC) as per specific requirement of the project.</li> <li>d. Filled in datasheet as per Annexure - D.</li> <li>e. General arrangement drawing indicating size of the vessel and cross-sectional drawing showing the arrangement and inter distances between elements of Pre filter and separator filter vessel, duly stamped and signed by original element (cartridge) manufacturer.</li> <li>f. Design calculation of filter separator vessel, material selection and thickness of major components.</li> <li>g. Design calculation for selection of Separator / Coalescer element, i.e., No. of elements, size, make, model, filtration efficiency, etc.</li> <li>h. Bill of Material and Material of conformity.</li> <li>i. Cross sectional and dimensional drawing of Separator / Coalescer filter cartridge.</li> <li>j. Bidder shall have their own API/EI certification or a valid license from EI certified manufacturers for manufacturing / fabricating the FWS / MF vessel. Bidder shall submit the either copy of their own EI certificate or authorization from EI certified manufacturers along with technical bid as per EI 1596.</li> <li>k. Bidder shall submit certified copy from manufacturer that the vessel is manufactured as per design standards EI 1581 for Filter Water Separator.</li> </ul> <p><b>6. After Placement of Purchase Order within 15 days.</b></p> <ul style="list-style-type: none"> <li>a. General arrangement, cross sectional and Dimensional drawing of the pre filter and separator filter vessel.</li> <li>b. Design calculation for selection of coalescer element and separator elements i.e., No. of elements, size, make, model, filtration efficiency etc.</li> <li>c. General arrangement drawing indicating size of the vessel and cross-sectional drawing showing the arrangement and inter distances between elements of Pre filter and separator filter vessel, duly stamped and signed by original element (cartridge) manufacturer.</li> </ul>





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		<p>d. Drawing of vessel internals, dimensions, orientation (arrangement) of elements and spacing between elements duly certified by the element manufacturer.</p> <p>e. Bill of Material &amp; Material of conformity.</p> <p>f. Complete Design calculation of filter separator vessel.</p> <p>g. Cross sectional and dimensional drawing of filter element</p> <p>h. Inlet to outlet pressure drop calculations.</p> <p>i. PRV / selection criteria along with calculations.</p> <p>j. Design calculation, datasheet, drawings of inspection door.</p> <p>k. Davit arm / hinge door details.</p> <p>l. Mechanical Ball and Float Arrangement for automatic draining from sump of vessel.</p> <p>m. Cartridge holding tie rod details.</p> <p>n. Painting procedure.</p> <p>o. Welding, heat treatment and testing procedure.</p> <p>p. Quality Assurance Plan.</p> <p>q. Drawing indicating locations where radiography shall be carried out for vessel.</p> <p>r. Design calculation and Details of saddle support, including dimensions and distances.</p> <p>s. Duly filled enclosed data sheet.</p> <p>t. Approval for all accessories and their mounting methodology.</p> <p><b>Installation, operation, and maintenance instructions / manuals.</b></p> <p><b>7. After Inspection, for Dispatch Clearance</b></p> <p>a. Inspection reports, inspection release note and packing list.</p> <p>b. All other documents as per approved QAP / ITP, approved drawings and technical specification.</p> <p><b>8. Along with dispatch (In 6 sets and pen drive - 3 nos.)</b></p> <p>a. Inspection reports, inspection release note and packing list</p> <p>b. All other documents as per approved QAP / ITP, approved drawings and technical specification.</p> <p>c. Installation, operation, and maintenance instructions / manuals.</p>



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Clause	Area	Description
14.0	Packing & Delivery	<p>a. Prior to shipments, Wooden Blocks of sufficient heights will be bolted to base mounting plates of filter casing so that sump and its fitment do not foul with the ground. Wooden blocks provided should be strong enough to withstand road / rail transportation.</p> <p>b. The filter elements shall be individually packed in a polyethylene bag and then in a paper carton in order to protect from contamination by dirt and moisture. Each master carton also individually protected by means of polyethylene or similar wrapping. The packing shall be strong and efficient enough to ensure safe perseverance up to the final point of destination.</p> <p>c. Attachments, spare parts of the equipment and small items shall be packed separately in wooden cases. Each item shall be appropriately tagged with identification of main equipment and reference number of the assembly drawing.</p> <p>d. Detailed packing list in water-proof envelope shall be inserted in the package together with equipment.</p> <p>e. Each equipment shall have an identification plate giving equipment data, make, year of manufacture, equipment number, name of manufacture.</p> <p>f. All valves shall be provided with suitable protectors for flange faces, securely attached to the valves. Bevel ends shall be protected with metallic or high impact plastic bevel protectors.</p> <p>g. All threaded and machined surfaces subject to corrosion shall be well protected by a coat of grease or other suitable material.</p> <p>h. The packaging shall be weatherproof as the packaged material shall be stored in open area at owner's facility.</p> <p>i. The packaged equipment shall be placed at any location at owner's facility (DAFFPL) as directed by owner's representative. This is deemed inclusive in bidder's scope and no extra payment shall be made towards it.</p> <p>j. The Bidder shall be held liable for all damages / losses due to the defective or insufficient packing.</p> <p>k. The Bidder shall supply the complete assembled and tested Filter Water Separator with all accessories to Owner Premises. Unloading of supplied Filter Water Separator and its accessories at Owners Premises at designated place (As directed by Engineer in charge/Owner's Representative) is inclusive &amp; within the Scope of work for Bidder. All components / consumables used shall be new, State of The Art and of current manufacture.</p> <p>Filter Water Separator and components must be stored as instructed by Owner Engineer in charge in Owner's Fuel Farm Premises. Interim storage of filter vessels shall be in open area at owner's premises however, weatherproof packing to be done by the bidder.</p>





**Delhi Aviation Fuel Facility Private Limited**



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Clause	Area	Description
15.0	Documents required	<p><b><u>Documents required to be submitted along with the Technical Bid:</u></b></p> <ol style="list-style-type: none"> <li>a. Signed Specification and specific requirement of the Project as a token of acceptance to the specification.</li> <li>b. Signed undertaking that the product is suitable according to service criteria mentioned above &amp; performance or product life or accessories functioning will not be affected by the service conditions.</li> <li>c. Bidder Qualification Documents (BQC) as per specific requirement of the project.</li> <li>d. Filled in and signed datasheet as per Annexure - D.</li> <li>e. General arrangement drawing indicating size of the vessel and cross-sectional drawing showing the arrangement and inter distances between elements of Pre filter and separator filter vessel, duly stamped and signed by original element (cartridge) manufacturer.</li> <li>f. Licensor’s approved GA drawing or Vessel or Datasheet of Vessel.</li> <li>g. Signed copy of Scope of Inspection.</li> <li>h. Design calculation of filter separator vessel, material selection and thickness of major components.</li> <li>i. Design calculation for selection of Separator / Coalescer element, i.e., No. of elements, size, make, model, filtration efficiency, etc.</li> <li>j. Bill of Material and Material of conformity.</li> <li>k. Cross sectional and dimensional drawing of Separator / Coalescer filter cartridge.</li> <li>l. Bidder shall have their own API/EI certification or a valid license from EI certified manufacturers for manufacturing / fabricating the FWS / MF vessel. Bidder shall submit the either copy of their own EI certificate or authorization from EI certified manufacturers along with technical bid as per EI 1596.</li> <li>m. Bidder shall submit certified copy from manufacturer that the vessel is manufactured as per design standards EI 1581 for Filter Water Separator.</li> </ol> <p><b><u>Documents required to be submitted prior to dispatch of Filter Water Separator:</u></b></p> <ol style="list-style-type: none"> <li>a) Test Certificates as per approved QAP</li> <li>b) NDT Report</li> <li>c) Hydro test Report</li> <li>d) As Built Drawings</li> <li>e) Inspection Release Note by TPIA</li> <li>f) Installation Manual</li> <li>g) Inspection &amp; Maintenance manual</li> </ol>



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<b>Client:</b>	Delhi Aviation Fuel Facility Private Limited		
<b>Location:</b>		<b>Document No.:</b>	DAFFPL/SGC/MR/0004

## ANNEXURE -D

# PROCESS DATASHEET FOR FILTER WATER SEPARATOR

						
0	10-10-2021	Issued for Tender	DR	AP	SKJ	
<b>Rev</b>	<b>Date</b>	<b>Description</b>	<b>Prepared</b>	<b>Reviewed</b>	<b>Approved</b>	<b>Client Review</b>

	<b>Delhi Aviation Fuel Facility Private Limited</b>			
<b>Project Name</b>	Providing Design Consultancy Services for Laying of Additional Receipt Header inside Fuel Farm Facility of DAFFPL.			
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## I. GENERAL

<b>Location</b>	New ATF Receipt Header (From IOC Bijwasan)
<b>Petroleum Class</b>	Zone 1, Group IIA, Temperature Class T3
<b>Vessel Design Code</b>	Filter Water Separator complying with specification EI 1581 Latest Edition, Category C, Type S and designed as per EI 1596 and ASME Code Sec. VIII
<b>Flowrate</b>	Nearest to 570 KL/hr $\pm$ (0.5%)
<b>Type of Filter Element</b>	Coalescer / Separator Element
<b>Switchover (None / Auto / Manual)</b>	Manual
<b>Switchover by time / Differential Pressure</b>	Change out differential Pressure - 1.0 Bar
<b>PMC Design / Bidder Design</b>	Vendor / Bidder Design & Package
<b>Surface Treatment</b>	Required
<b>Ext. Fire</b>	Yes
<b>Quantity</b>	2 Nos.

## J. FLUID DATA

Product handled - Solid / Liquid / Gas	Liquid
Product Fluid Handled	ATF
Liquid Density @15 °C Kg/m <sup>3</sup>	840
Liquid Viscosity @15 °C cSt	2.1
Corrosive / erosive due to	Water
Flammable / Explosive / Toxic	Flammable
Source of liquid / drop / mist	Water

## K. CAPACITY FILTERATION

Normal Flow rate m <sup>3</sup> /hr.	<b>570 m<sup>3</sup>/hr <math>\pm</math> (0.5%)</b>
Filtration $\geq$ Size > Efficiency	1- Micron
Max. allowable outlet liquid entrainment	Water content at outlet of Filter water separator shall be maximum 30-PPMV



	<b>Delhi Aviation Fuel Facility Private Limited</b>			
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**L. OPERATING CONDITION**

Rated Inlet pressure kg/cm <sup>2</sup>	15 kg/cm <sup>2</sup>
Max. Pressure Drop (fouled at RF)	1.5 kg/cm <sup>2</sup>
Inlet Pressure kg/cm <sup>2</sup>	15 kg/cm <sup>2</sup>
Rated Flow m <sup>3</sup> /hr. (Max / Nominal / Minimal)	Maximum 570 m <sup>3</sup> /hr.
% Relative Humidity Min/Max	98%

**M. DESIGN & CONSTRUCTION DATA**

Design Type	N.A
Body Alignment	Bidder to propose
Design Pressure kg/cm <sup>2</sup>	As per ASME B31.3 (150#)
Design Temperature °C	As per standard temperature mentioned in EI 1596
Max. Diff. Pressure to withstand Relief case, Valve Set Pressure kg/cm <sup>2</sup>	Bidder to Specify
Test Pressure @ Ambient temperature	As per ASME Sec VIII
MOC of Body	Carbon Steel
Corrosion Allowance in mm	1.5
Basic MOC / Element / Holder	SA 516 Gr 60/70
Radiography	Required
Filter/ Filter Element	EI 1581 Compliance / Compliance as per similarity as per EI 1582
Filter Element Mounting assembly	As per EI 1581
Internal Lining	Required Epoxy Lining According to EI 1541
External Coating	Required
Water Drain	Required
Pressure Relief valve	Required
Air Eliminator	Required
Elements Withdrawal End	From Top Manual withdrawal
Supports	Integral with Vessel- Leg Type
Oil Pressure Tapping's	Required

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#### N. VENDOR / BIDDER DATA REQUIRED BY PROCESS

Actual Pressure Drop / Clean and Part Fouled / No of Element / Element Model No. / Element Life / Spare Element Provided / Total Filter Area / Coalescers OD & Length / Separators OD & length / Solid / Holding Capacity / Pr. Relief Valve Details / Dimensions & Weight / Cleaning Cycle Details / Operating Instructions / Calculations for Approvals / Element Length / Arrangement Drawing / Element Removal / Space Requirement, Filtration Efficiency, Element filtered details, Torque requirement septum plate details etc.		
Nozzle No.	Nozzle Description	Size
N1	Inlet	10"
N2	Outlet	10"
N3	Pr. Relief Valve	3/4"
N4	Air Eliminator	3/4"
N5	Vent Valve	3/4"
N6A / B	Inlet / Outlet bottom Drain	1"
N7A / B	PDI / PDT	1/4"
N8A / B	Level Transmitter	*
N9A / B	Level Transmitter & Indicator	*
Inlet / Outlet	Millipore Point	3/4"

- 1) \* Bidder to provide / confirm.
- 2) The Size of Nozzles and Pressure Ratings/ Pipe Class will be decided on the basis of design pressure of vessel and the final design of Filter Water Separator shall be subjected to approval from Owner.

#### O. ITEMS TO BE PROVIDED BY BIDDER



a.	Filter Water Separator (Capacity and Quantity Mentioned Line-Item Wise)
b.	Coalescer - Flat Base Type; Separator - Flat Base Type
c.	Synthetic Coated (Plate Type) for FWS
d.	High Level Water Alarm Signal (pertaining water detection)
e.	Water Level Indication
f.	Millipore Adapters
g.	Pressure differential gauge with tubing and Digital Direct Reading Differential Pressure Gauge

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## P. SPECIAL REQUIREMENTS & NOTE

Sr. No.	Special Requirement / Note
1.	The Filter Water Separators are placed downstream of unloading pumps receipt lines of the Storage tank
2.	Minimum Hydrostatic Pressure to be As per ASME Sec VIII
3.	Flanged cover with 'O' ring gasket for manual removal of filter elements to be provided and cover to be supported by an integral davit.
4.	Flow Control Valve to be designed to limit flow to the maximum rating of Filter Water Separator
5.	Earthing Lugs to be provided
6.	Filter shall be designed to filter solids to 1 micron and water separation to within 15 ppm. Filter elements should be compliant with the requirements of EI 1581 Latest Edition,
7.	Shall be designed to withstand a differential pressure in the direction of normal flow of 1.5 kg/cm <sup>2</sup> and also hydro tested as per code whilst blanking off the individual element outlet
8.	Shall have provision of differential Pressure gauge
9.	Shall have provision of Differential Pressure Transmitter
10.	Shall have provision of inlet/ outlet / bottom sampling line with isolation valve
11.	Visio flow indicator & Field Alarm in the event of high differential pressure across filters
12.	Potential free contacts be provided so that connection can be taken to control room as well.
<b>13.</b>	<b>Other Provision</b>
	a) Water Level Indicator - Mechanical Type is Required
	b) Third party inspection Agency - Required
	c) Party to provide typical drawing of the Filter Water Separator
	d) QAP to be submitted by the Bidder.
	e) EI 1581 standards of latest edition to be followed wherever any of the requirements is not stated above
	f) Bidder shall either have EI Certification or License from Principal EI Manufacturer / Fabricator of the Filter Water Separator and its Elements to fabricate



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### LIST OF THIRD-PARTY INSPECTION AGENCIES

1. M/s. Indian Register of Shipping.
2. M/s. ABS Industrial Verification (India) Pvt. Ltd.
3. M/s. Projects and Development India Ltd.
4. M/s. Certification Engineers International Ltd.
5. M/s. Det Norske Veritas.
6. M/s. Bureau Veritas India.
7. M/s. Lloyds Register.
8. M/s. TUV SUD South Asia Pvt. Ltd.
9. M/s. Quality Evaluation and Systems Team Pvt. Ltd.
10. M/s. RINA India Pvt. Ltd.



Delhi Aviation Fuel Facility Private Limited





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<b>Client:</b>	Delhi Aviation Fuel Facility Private Limited				
<b>Location:</b>		<b>Document No.:</b>	DAFFPL/SGC/MR/0004		

**ANNEXURE -E**  
**DATASHEET FOR FIELD TRANSMITTERS**  
**(Applicable for FWS & MF)**



0	10-10-2021	Issued for Tender	DR	AP	SKJ	
<b>Rev</b>	<b>Date</b>	<b>Description</b>	<b>Prepared</b>	<b>Reviewed</b>	<b>Approved</b>	<b>Client Review</b>

	<b>Delhi Aviation Fuel Facility Private Limited</b>			
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## Datasheet for Differential Pressure Transmitters

Differential Pressure Transmitter shall be fixed on all vessels (FWS & MF). Working & Mounting methodology approval, make approval to be taken from owner.

Sr No.	General	Minimum Requirement
1	Description	Electronic Indicating Transmitter
2	Type	2 wire, Electronic (SMART) with HART Protocol
3	Pressure Range	15 kg/cm <sup>2</sup>
4	Temperature Range	-5 to +55 Deg C
5	Mounting	2" pipe, Field
6	Case	Mfr. Std.
7	Output	4 - 20 mA DC into 500 Ohms load minimum
8	Power Supply	24 V DC from receiver inst.
9	Enclosure	Intrinsically Safe and Weather Proof up to minimum IP 65
10	Area Classification	Zone- 1 & 2, Gas group IIB , Temp class T6 as per IEC 60079
11	Electrical Connection	1/2" NPT(F)
12	Built in Indicator	Yes
13	Local Display	4 digits LCD Display, In Engg. Units
14	Accuracy	+ 0.075% of span or better including the effects of linearity, hysteresis & repeatability
15	Stability	+ 0.1% of upper range limit for 6 months / greater
16	Power (Hysteresis + repeatability + Linearity)	+/-0.1% of span
17	Turn Down Ratio	30: 1
18	Drain/Vent	Required, plug of SS
19	Zero/Span	From front pad of instrument / By Hand-held terminal, non-interactive
20	Self-Diagnostic Facility	Required
<b>MEASURING UNITS</b>		
21	Service	Differential Pressure
22	Element	Piezo resistive /Capacitance / Resonance
23	Operating. Temp Limits -	2.2°C to 48.4°C
24	Body / Covers Material	Die cast Copper free aluminium
25	Element	SS 316L or better
26	Fill Fluid	Silicon
27	Process Connection	1/2" NPT(F)

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<b>ACCESSORIES</b>		
28	5 - Valve manifold	Required of SS316
29	Mounting Accessories	Required
30	Zener Barrier	Required (MTL 7787 +) *bidder to specify
31	Cable Glands	Required: Weather-proof & flame proof, double compression of brass, Ni coated 1/2" NPT
<b>OTHER</b>		
32	Protocol supports other than HART *	Bidder to specify
33	Make *	Honeywell
34	Model No. *	STD730-E1AS4AS-1-E-AHC-11C-B-21A6-F1-0000



# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## ANNEXURE II – DEVIATION SHEET

EXCEPTION AND DEVIATIONS STATEMENT				
S.NO.	PAGE NO. OF TENDER DOCUMENT	CLAUSE NO.	SUBJECT	DEVIATIONS

Bidder shall list all the deviations in the following given format only on their Letterhead. The Deviation sheet should be submitted along with technical bid.

In case no deviation sheet is submitted along with technical bid, it would be concluded that bidder has accepted all specifications, terms and conditions.

---

Sign & Stamp of Bidder



# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## ANNEXURE III – DECLARATION SHEET

Date:

### **DECLARATION**

We, M/s \_\_\_\_\_ hereby, unconditionally accept all terms & conditions of TENDER NO.: DAFFPL/FF/2021-22/04 (JOB: TENDER FOR SUPPLY OF MICRO FILTERS AND FILTER WATER SEPARATORS) including Scope of job, quantities, completion period, terms & condition without any deviations.

Sign & Stamp of Bidder

Note: In case of deviations (whether technical or commercial) the above declaration should not be submitted, and the deviations should be mentioned separately on bidders letter head with the heading "DEVIATION SHEET". In absence of "DEVIATION SHEET", it would be concluded that bidder has submitted his offer as per tender specifications, terms & conditions. Corrections in tender booklet will not be accepted.

---

Sign & Stamp of Bidder



# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## ANNEXURE-IV

### **PROFORMA OF BANK GUARANTEE (EARNEST MONEY DEPOSIT)**

(On Non-Judicial Stamp paper for appropriate value)

BANK GUARANTEE NO. :

BANK GUARANTEE AMOUNT:

CLAIM:

(Till 120 days from date of submission of Proposal)

TENDER NO. /DATE:

JOB DESCRIPTION/

LOCATION:

### **Tender Security No. [\*]**

Name and Address of the Beneficiary: Delhi Aviation Fuel Facility (Private) Limited  
Aviation Fuelling Station, Shahabad Mohammadpur, IGI Airport, New Delhi – 110 061, India

We [*name and address of the issuing bank*] have been informed that [*Name of the Interested party*] (hereinafter called the “Interested Party”) is submitting a proposal for the Award of the Works in response to a Request for Proposal (“RFP”) by Delhi Aviation Fuel Facility (P.) Ltd. (“DAFFPL” or ‘Beneficiary’) for [*Insert description of work*] (“Works”). The conditions of the RFP, which are set out in a documents entitled Request for Proposal dated [*Please insert*] require its offer to be supported by a Tender Security.

At the request of the Interested Party, we hereby irrevocably undertake to pay you without demur, the Beneficiary, any sum or sums not exceeding Rs. \_\_\_\_\_ [*Please insert*].

Upon receipt by us of your demand in writing and your written statement (in the demand) stating that:

- 1) The Interested Party has, without written consent of DAFFPL, withdrawn its offer after the latest time specified for its submission and before the expiry of its period of validity; or
- 2) The Interested Party has refused to accept the correction of errors in nits offer in accordance with the instructions to Interested parties contained in the RFP; or

---

Sign & Stamp of Bidder



## **DELHI AVIATION FUEL FACILITY PRIVATE LIMITED**

- 3) DAFFPL entered in to the contract with the Interested party but the Interested party has failed to deliver the **COMPOSITE BANK GUARANTEE (SECURITY DEPOSIT & PERFORMANCE)** in compliance with the Contract conditions; or
- 4) The Interested Party has failed to enter into the Contract within 30 (Thirty) days of being required to do so by the Tender Officer.

Any demand for payment must contain your signature(s). The demand must be received by us at this office on or before the expiry of the earliest of the following dates, when this security guarantee shall expire and shall be returned to us:

- a) Date of issue of letter communicating to the Interested Party that it has not qualified for the contract or the Proposal submitted by the Interested Party is unsuccessful or the TENDER is withdrawn and/or cancelled by the Beneficiary; or
- b) 7 (seven) days after the date of delivery of an acceptable performance bond complying with the Contract conditions and execution of the Contract after the award of the works to the Interested Party; or
- c) 120 (One hundred twenty) days from the last date of submission of Proposal in accordance with the TENDER.

Date:

Signature:

Designation:

Name of the Branch

---

Sign & Stamp of Bidder





# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## ANNEXURE-V

### **PROFORMA OF COMPOSITE BANK GUARANTEE (SECURITY DEPOSIT & PERFORMANCE)**

(On Non-Judicial paper of Rs. 100/-value)

To,

DAFFPL

Dear Sirs,

M/s .....have taken tender for the work .....for DAFFPL,.

The tender Conditions of Contract provide that the Contractor shall pay a sum of Rs. .... (Rupees ..... ) as security deposit & performance guarantee in the form therein mentioned. The form of payment of security deposit & performance guarantee includes guarantee executed by Scheduled Bank at New Delhi, undertaking full responsibility to indemnify DAFFPL, in case of default. The said party ..... have approached us at and their request and in consideration of the premises we ..... having our office at ..... have agreed to give such guarantees as hereinafter mentioned.

1. We -----hereby undertake and agree with you that if default shall be made by M/s. -----in performing any of the terms and conditions of the tender or in payment of any money payable to Daffpl. We shall on demand pay to you, without demur, protest or requiring you to seek recourse to M/s \_\_\_\_\_, in such matter as to you may direct the said amount of Rupees ----- only or such portion thereof not exceeding the said sum as you may from time to time require.
2. You will have the full liberty without reference to us and without effecting this guarantee, postpones for any time or from time to time the exercise of any of the powers and rights conferred on you under the contract with the said -----and to enforce or to forbear from endorsing any powers of rights or by reason of time being given to the said -----which under law relating to the sureties would but for provision have the effect of releasing us.
3. Your right to recover the said sum of Rs. ----- (Rupees -----) from us in manner aforesaid will not be affected or suspended by reason of the fact that any dispute or disputes have been raised by the said M/s. -----

\_\_\_\_\_  
Sign & Stamp of Bidder



## DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

- and/or that any dispute or disputes are pending before any officer, tribunal or court.
4. The guarantee herein contained shall not be determined or affected by the liquidation or winding up dissolution or change of constitution or insolvency of the said -----but shall in all respect and for all purposes be binding operative units payment of all money due to you in respect of such liabilities is paid.
  5. Our liability under this guarantee is restricted to Rupees -----our guarantee shall remain in force until -----unless a suit or action to enforce a claim under Guarantee is filed against us within six months from -----(which is date of expiry of guarantee) all our rights under the said guarantee shall be forfeited and we shall be relieved and discharged from all liabilities there under.
  6. NOT WITHSTANDING anything hereinbefore contained our liability under this Bank Guarantee is restricted to Rupees -----( Rupees -----).This Bank Guarantee shall be valid up to -----and we are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before -----.
  7. This guarantee is to be returned to us within fifteen (15) days from the date it ceases to be in force. If the guarantee is not returned to us within the date of aforementioned it shall be automatically cancelled.
  8. We have power to issue this guarantee in your favour under Memorandum and Articles of Association and the undersigned has full power to do under the Power of Attorney dated -----granted to him by the Bank.

Yours faithfully

-----Bank  
By its Constituted Attorney  
Signature of a person duly  
Authorized to sign on behalf of the bank

---

Sign & Stamp of Bidder



# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## Annexure- VI

### Form of Letter of Undertaking

[On the letterhead of the Interested Party]

#### **Letter of Undertaking**

**Date:**

Delhi Aviation Fuel Facility (Private) Limited  
Aviation Fuelling Station, Shahabad Mohammadpur,  
IGI Airport, New Delhi – 110 061, India

**Re:**

The undersigned Interested Party acknowledges that the TENDER issued is confidential and personal to the undersigned Interested Party and hereby undertakes and agrees as follows:

1. **“Confidential Information”** means the TENDER and everything contained therein, all documentation, data, particulars of the Works and technical or commercial information made by (or on behalf of) Delhi Aviation Fuel Facility (Private) Limited or obtained directly or indirectly from Delhi Aviation Fuel Facility (Private) Limited or its representatives by the undersigned Interested Party or which is generated by the undersigned Interested Party or any information or data that the undersigned Interested Party receives or has access to, as a result of the TENDER, as being confidential information of Delhi Aviation Fuel Facility (Private) Limited, provided that such term does not include information that (a) was publicly known or otherwise known to undersigned Interested Party prior to the time of such disclosure, (b) subsequently becomes publicly known through no act or omission by undersigned Interested Party or any person acting on its behalf.
2. The undersigned Interested Party shall maintain the confidentiality of Confidential Information in accordance with procedures adopted by the undersigned Interested Party in good faith to protect confidential information of third parties delivered to it, provided that the undersigned Interested Party may deliver or disclose Confidential Information to its authorized representatives who agree to hold confidential the Confidential Information substantially in accordance with the terms of this Undertaking.
3. The undersigned Interested Party shall not at any time whatsoever:
  - (i) Disclose, in whole or in part, any Confidential Information received directly or indirectly from the Delhi Aviation Fuel Facility (P) Limited to any third party.

---

Sign & Stamp of Bidder



## **DELHI AVIATION FUEL FACILITY PRIVATE LIMITED**

(ii) Reproduce, publish, transmit, translate, modify, compile or otherwise transfer the Confidential Information.

4. In case the Proposal of the undersigned Interested Party is not accepted and immediately upon the acceptance of the Proposal of any of the other Interested Party, the undersigned Interested Party, shall:

(i) Return all Confidential Information including without limitation, all originals, copies, reproductions and summaries of Confidential Information; and

(ii) Destroy all copies of Confidential Information in its possession, power or control, which are present on magnetic media, optical disk or other storage device, in a manner that ensures that the Confidential Information is rendered unrecoverable.

5. The undersigned Interested Party shall certify to Delhi Aviation Fuel Facility (Private) Limited that it has returned or destroyed such Confidential Information to the Delhi Aviation Fuel (Private) Limited within two (2) days of such a request being made by Delhi Aviation Fuel (Private) Limited.

**Name of Interested Party's**

**Signature of Authorized Representative**

---

Sign & Stamp of Bidder



# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## Annexure VII

### **DECLARATION to be submitted along with Technical Bid**

(M/s. \_\_\_\_\_) hereby declare / clarify that we have not been banned or delisted by IOCL/BPCL/DIAL or any government or quasi Government agencies or Public Sector Undertakings.

Stamp & Signature of the bidder

**NOTE:** If a bidder has been banned by IOCL/BPCL/DIAL or any Government or quasi Government agencies or PSUs, this fact must be clearly stated with details. If this declaration is not given along with the technical bid, the tender will be rejected as non-responsive.

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Sign & Stamp of Bidder



# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## ANNEXURE VIII

### STATEMENT OF CREDENTIALS

(A)

**1. NAME AND CORRESPONDENCE ADDRESS OF THE TENDERER**

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**PERMANENT ADDRESS OF THE TENDERER**

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**2. TELEPHONE NO.** \_\_\_\_\_

**MOBILE NO.** \_\_\_\_\_

**3. NAME OF CONTACT PERSON(s):** \_\_\_\_\_

**4. NAME OF THE AUTHORISED SIGNATORY:** \_\_\_\_\_

**5. E Mail ID:** \_\_\_\_\_

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# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

**(B) TYPE OF BUSINESS ENTITY:**

1. YEAR OF ESTABLISHMENT OF THE FIRM: \_\_\_\_\_

2. SOLE PROPRIETORSHIP: - \_\_\_\_\_

(Give Name of the Proprietor)

OR

3. PARTNERSHIP FIRM?

(Give names of the Partners and enclose scan copy of Partnership deed)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

OR

4. PRIVATE OR PUBLIC LIMITED COMPANY?

(Attach list of Directors and copy of Certificate of Incorporation as defined in "Other Mandatory Documents")

**(C) Details of Completed Purchase Orders of minimum value as per Pre-qualification criteria (PQC/BQC) during last SEVEN years as specified in PQC/BQC of the tender.**

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## DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

Sl. No	Particulars	1	2	3
a	Party's Name to whom supplied, Clear Postal Address, Telephone/Fax Nos and E-Mail Address.			
b	<b><u>Purchase Order Details-</u></b>			
	PO Reference No.			
	PO Date			
	PO Value (Rs. in Lakhs)			
c	<b>Quantity &amp; place of supply</b>			
d	<b>Scheduled time of completion as per PO</b>			
e	<b>Date of commencement of supply</b>			
f	<b>Date of completion of supply</b>			
g	<b>Completion certificate reference and date</b>			

Note: a. Tenderer should furnish copy of the above-referred orders (as defined under PQC documents) and

b. Enclose a separate statement if space is not sufficient.

(D) **Annual Turnover (as per Audited Balance Sheet) in following last THREE financial years**

SL No.	Financial Year	Value (Rs. In Lakhs)
1	2018-2019	
2	2019-2020	
3	2020-2021	

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# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

**Note :** Tenderer should furnish copy of audited accounts as proof of turnover (as defined under tender documents).

**(E) INCOME TAX DETAILS:**

i. Income Tax Returns Filed:

ASSESSMENT YEAR	DATE	ACKNOWLEDGEMENT NO
2018-2019		
2019-2020		
2020-2021		

**Note:** Tenderer should furnish copy of the Income Tax Return filed.

ii. Income Tax Assessment Orders for following three financial years:

ASSESSMENT YEAR	ASSESSMENT ORDER & DATE	REMARKS
2018-2019		
2019-2020		
2020-2021		

Copies of Income Tax assessment orders / return filed / acknowledgement order for the three years as indicated above.

**(F) GST Registration Details:**

GST Registration no	
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Note: Tenderer should furnish copies of above Tax Registration Certificates.

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# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

(G) Mode of EMD (Online EMD or BG):

i. If paid Online:

AMOUNT	Rs.
(RTGS/NEFT/NET BANKING)	
Transaction Detail	

ii. If Bank Guarantee submitted (following details to be given) :

Name of the Issuing Bank and Branch Address	Bank Guarantee No and Date	BG Amount Rs.	Date of issuance	Valid Upto

(H) Production Capacity Details: (in case of manufacturer)

S. N	Item	Factory/ Location	Installed/ Capacity	Already Committed Capacity (For current Purchase orders in hand )	Spare Capacity, If Any	Capacity Committed to DAFFPL against this tender
			A	B	C=A-B	

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# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

**Factory License and Address Details:**

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- (J) **In case the bidder is not a manufacturer, the bidder should submit an undertaking on Letter Head that the bidder is capable of supplying the material / equipment as per tender requirement.**
  
- (K) **Pan Card Details**  
  
**Relation of Pan Holder to Tenderer  
(PROP./PARTNER/COMPANY ETC.)**  
**(Tenderer is required to upload copy of PAN card as detailed in "Other Mandatory documents")**
  
- (L) **Details of Documents uploaded along with Tender documents in technical bid and confirmation required to be furnished by tenderer.**

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# DELHI AVIATION FUEL FACILITY PRIVATE LIMITED

## PAYMENT TO VENDORS THROUGH ELECTRONIC MODE

Tenderers are requested to submit their Consent Letter as per the format given below along with the enclosures as required:

Dated:

To,  
M/s DAFFPL.

Dear Sir,

With reference to your advice, we hereby agree to accept the payment of our bills through "RTGS/NEFT/Electronic Mode". The desired bank account details are given below:

1.	Name of Beneficiary	
2.	Name of the Beneficiary's Bank	
3.	Address of the Beneficiary's Bank Branch	
4.	Contact details of Branch with STD Code	
5.	Beneficiary's Bank Account No. (as per cheque copy)	
6.	Beneficiary's Account Type (SB/CC/CA)	
7.	Beneficiary's Bank IFSC Code (11 Digit)	
8.	Mobile No of Beneficiary (One Number only)	
9.	E-Mail Id of Beneficiary (One Mail Id only)	

A blank cancelled cheque leaf relating to the above bank account is enclosed for verifying the accuracy of the bank account details.

I hereby declare that the particulars given above are correct and complete.

(Signature of Account Holder)

Seal of the Vendor

Encl: Cancelled Cheque

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**Delhi Aviation Fuel Facility Private Limited**



**PRICE BID**

**Tender No: DAFFPL/FF/2021-22/04**

**Name of the Work: SUPPLY OF MICRO FILTERS AND FILTER WATER SEPARATORS**

**Name of Firm:**

S No	Particulars	Qty	Units	Unit Rate (Rs.)	Total Amount ( Rs.)	Tax %	Tax Amount	Total Amount including taxes ( Rs.)	Total Amount including taxes in words( Rs.)
1	MICRO FILTER (Capacity - 570 KL/hr. to 600 KL/hr.): Micro Filter complying with specification EI 1590 Latest Edition and designed as per EI 1596 Latest Edition and ASME Code Sec. VIII Div. I latest edition.	2	Nos		0.00		0.00	0.00	
2	FILTER WATER SEPARATOR (Capacity - 570 KL/hr. with ± (0.5%) acceptable variation): Filter water complying with specification EI 1581 Latest Edition, Category C, Type S and designed as per EI 1596 Latest Edition and ASME Code Sec. VIII Div. I latest edition.	2	Nos		0.00		0.00	0.00	

Note: All Yellow colour highlighted cells shall be filled by the bidder.