



भारतीय कृषि अनुसंधान परिषद - औषधीय एवं संगंधीय पादप अनुसंधान निदेशालय
बोरीआवी - 387 310, आणंद, गुजरात, भारत.

ICAR-Directorate of Medicinal and Aromatic Plants Research
Boriavi - 387 310, Anand, Gujarat, India.

Ph.No: (02692) 271600,05,06 Fax: (02692) 271601.

Website: www.dmapr.org.in

F.No. 41-56/2016-17/SP/6075

Dated 08/12/2016

NOTICE INVITING TENDER THROUGH E-PROCUREMENT

Online Bids are invited from the interested firms **under two bid system for procurement of "Various Scientific Equipments (IFB-3)"** at ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi - 387310, Anand, Gujarat. Manual bids shall not be entertained.

Tender documents may be downloaded from e-Procurement website of CPP <https://eprocure.gov.in/eprocure/app> as per the schedule as given in **CRITICAL DATE SHEET** as under:

CRITICAL DATE SHEET

Tender No.	F.No. 41-56/2016-17/SP/
Date and Time for Issue/Publishing	04.00 PM on 08/12/2016
Document Download/Sale Start Date and Time	04.00 PM on 08/12/2016
Bid Submission Start Date and Time	04.00 PM on 08/12/2016
Bid Submission End Date and Time	03.00 PM on 05/01/2017
Date and Time for Opening of Bids	03.00 PM on 06/01/2016
Address for Communication	Administrative Officer, ICAR-Directorate of Medicinal & Aromatic Plants Research, Boriavi -387310, Anand, Gujarat

Sd/-

Administrative Officer.

INSTRUCTIONS FOR ONLINE BID SUBMISSION

1. The tender form/bidder documents may be downloaded from the website: <https://eprocure.gov.in/eprocure/app>. Online submission of Bids through Central Public Procurement Portal (<https://eprocure.gov.in/eprocure/app>) is mandatory. Manual/Offline bids shall not be accepted under any circumstances.
2. Tenders/bidders are requested to visit website <https://eprocure.gov.in/eprocure/app> regularly. Any changes/modifications in tender enquiry will be intimated by corrigendum through this website only.
3. In case, any holiday is declared by the Government on the day of opening, the tenders will be opened on the next working day at the same time. The Council reserves the right to accept or reject any or all the tenders.
4. The interested Firms are required to deposit (in original) **Tender Fee of Rs.1000/-** (Non-refundable) in the shape of Demand Draft prepared in favour of **ICAR Unit: DMAPR, payable at Anand** may be addressed to the **Administrative Officer, Directorate of Medicinal and Aromatic Plants Research, Boriavi -387 310, Anand, Gujarat** on or before bid opening date and time as mentioned in the Critical Date Sheet.
5. The interested Firms are required to deposit (in original) and Earnest Money Deposit (EMD) of the amount mentioned against item in the form of Demand Draft/Bank Guaranty from any of the Commercial Bank in favour of **ICAR Unit: DMAPR payable at Anand** may be addressed to the **Administrative Officer, ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi -387 310, Anand, Gujarat** on or before bid opening date and time as mentioned in the Critical Date Sheet.
6. The firm should send the Original brochures of the product and may be addressed to the Administrative Officer, **ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi – 387 310, Anand, Gujarat** on or before bid opening date and time as mentioned in the Critical Date Sheet.
7. Bidder need not to come at the time of Technical as well as Financial bid opening at ICAR-DMAPR. They can view live bid opening after login on CPP eProcurement Portal at their remote end. If bidder wants to join bid opening event at ICAR-DMAPR then they have to come with bid acknowledge slip that generates after successfully submission of online bid.

The Firms are also required to upload copies of the following documents:-

- **TECHNICAL:**

- (a) Scanned copy of Tender fee and Earnest Money Deposit (EMD)/its exemption, if any.
- (b) Scanned copy of Firm's registration, Pan Card, VAT No./Service Tax No., Tender Acceptance Letter (Annexure-V).
- (c) Scanned copy of Manufacturers Authorization Certificate issued by Principal Manufacturer duly verified by the Indian Agent or Manufacturing Certificate.
- (d) Scanned copy of Income Tax Statement for the last three years.
- (e) Scanned Copy of Annexure – II and IV.
- (f) Scanned copy of all authentic documents regarding firm's turnover of Rs.1.00 Crore per year during last three year.
- (g) Scanned copy of Make and Model of all systems, sub systems and additional items should be mentioned in the technical bid and complete technical details should be provided in the form of Brochures and write-ups.

- **FINANCIAL BID:**

- (a) Price Bid as BoQ_XXXX.xls

Sd/-
(Vijay Kumar)
Administrative Officer



TERMS AND CONDITIONS

1. The tender shall quote rates, which will include the delivery and other incidental charges, Taxes, if any, should be indicated separately.
2. The rates should be quoted as per the BOQ uploaded on the CPP Portal (reference may be obtained from Annexure –III). Taxes, if any, should be indicated separately. It must be noted that the contract shall be awarded to the firm which fulfils all the required terms and conditions and remains L-1 for any particular items.
3. The firm must also possess valid PAN No., TIN No. & Service Tax Registration Number and a copy of the same must also be enclosed with the tender document.
4. Copy of previous three years of Income Tax Statement may be furnished.
5. The firm should be in existence for over 05 (Five) years in the trade with the business turnover of not less than Rs.1.00 Crore per annum during the last three years. Documents to this effect may be enclosed.
6. Modification in the tender documents after the closing date is not permissible.
7. The successful firm shall have to supply the **Various Scientific Equipments** within 6 weeks from the date of confirmed supply order and if the materials are not supplied in time then EMD shall be forfeited. The rates quoted shall be valid for one year from the date of opening of tender.
8. The contractor/bidder or his representative may contact the undersigned at Telephone No.02692-271600 for any further clarification. No variation in terms of quality of the items shall be entertained or else EMD/Security deposit shall be forfeited.
9. The Director, ICAR-Directorate of Medicinal and Aromatic Plants Research (ICAR-DMAPR) shall have the right to reject all or any of the offers, accept more than one offer, and assign part of the job.
10. Merely quoting of lowest rates does not mean that order shall be given to that firm. The Competent Authority will finally decide on the basis of quality and performance of past installations.
11. The interested Firms are required to deposit (in original) an Earnest Money Deposit (EMD) of the amount mentioned against each item in the form of Demand Draft/Bank Guaranty from any of the Commercial Bank in favour of **ICAR Unit: DMAPR payable at Anand** may be addressed to the Administrative Officer, ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi -387 310, Anand, Gujarat. No tender shall be considered without the Earnest Money Deposit. Demand Draft other than drawn in favour of any officer 'ICAR Unit: DMAPR payable at Anand will not be accepted and the tender

will be rejected. The Earnest Money will be refunded only after the finalization of the procurement and n interest will be paid on Earnest Money.

12. Rates once finalized will not be enhanced/reduced during the currency of the contract.
13. In case of foreign currency, conversion rates in INR will be taken on that day when financial bid will open.
14. In case, the successful bidder shows inability at any stage, after the contract is finalized and awarded, for whatsoever reason(s), to honour the contract, the Earnest Money/Performance Security deposited would be forfeited.
15. The Director, ICAR-DMAPR reserves the right to cancel the contract at any time during the currency period of the contract without giving any reason.
16. The firm to whom the tender will be awarded, will have to deposit the Performance Security equal to 10% of the total amount at the time of installation of the Equipment. If the services are not found to be satisfactory, the Performance Security is liable to be forfeited. No interest will be paid on Performance Security.
17. If any disputes(s) arises between ICAR-DMAPR and the firm with reference to the contract, ICAR-DMAPR will decide it and its decision will be binding on the firm.
18. Bid Validity : 180 days.
19. The contract will be given to item-wise Least one (L-1).
20. Our Institute is Registered with DSIR and we are exempted from Excise Duty & Custom Duty. Hence CDEC/DSIR will be provided to the firm, if demanded. Rate should be quoted accordingly.
21. **PAYMENT:**
 - (A) **Payment for Goods supplied from abroad:**
 - (a) On shipment 90% of the contract price (FOB) shall be paid through Irrevocable Letter of Credit upon submission of documents detailed in L/C.
 - (b) 10% of the contract price (FOB) (in foreign currency) and other charges like freight etc., from FOB to **FOR ICAR-DMAPR, Boriavi (in INR)** will be released after satisfactory installation/working of equipment/machine etc. As well as on submission/production of Performance Bank Guarantee by the Supplier(s).

(B) Payment of Goods Supplied within India:

- (i) 100% of the contract price on receipt of goods by the consignee supported by satisfactory installation/working report and submission of PBG.

22. INSTALLATION:

Within 30days from the date of receipt of equipment in the Institute failing which Liquidated Damage clause shall apply.

Liquidated Damage Clause: It would be realized @ 0.5% (half per cent) of the base price (excluding taxes) of the delayed goods for each week of delay subject to maximum 10%.

21. PRICES:-

I. If any bidder wants to quote in foreign currency, price be quoted on FOB international port of shipment in foreign currency and all charges from FOB international Port to FOR, ICAR-DMAPR, Boriavi (like; air/sea freight, insurance, custom duty against CDEC, Custom Clearing charges and transportation up to ICAR-DMAPR, Boriavi) should be quoted in INR only.

II. If any bidder wants to quote in INR, Price be quoted on FOR, ICAR-DMAPR, Boriavi basis.

III. IN CASE THE STORES PERTAINS TO IMPORT:

I. KINDLY ENSURE TO ENCLOSE MANUFACTURER'S AUTHORISATION IN FAVOUR OF INDIAN SUBSIDIARY FIRM. IT MAY ALSO BE NOTED THAT FURTHER AUTHORISATION BY SUBSIDIARY FIRM IN FAVOUR OF ANY OTHER FIRM LOCATED IN INDIA TO PROMOTE THEIR SALE MUST HAVE AUTHORISATION FROM THE PRINCIPAL FIRM FOR FURTHER AUTHORISATION TO AN INDIAN FIRM, FAILING WHICH THE TENDER IS LIABLE TO BE CANCELLED.

II. PRICE SHOULD BE QUOTED ON FOR INTERNATIONAL AIRPORT/SEAPORT AND CIF AHMEDABAD ALSO. IN CASE ANY FIRM QUOTES THE RATE ON FCA OR EX-WORKS BASIS ONLY, FCA OR EX-WORKS PRICE WILL BE TREATED AS FOR INTERNATIONAL AIRPORT/SEAPORT.

III. PRICE CAN ALSO BE QUOTED IN INR (FOR BASIS), BUT IN THAT CASE EITHER CDEC/DSIR OR VAT CAN BE DEMANDED. DEMAND FOR BOTH VAT AND CDEC/DSIR CAN NOT BE CONSIDERED.

IV. PRICE SHOULD BE QUOTED FROM FOB TO FOR DESTINATION (ICAR-DMAPR) IN INDIAN CURRENCY (INR) ALSO.

'Terms and conditions are acceptable'

Dated:

(Authorized Signatory of the firm)

ANNEXURE-III

(Reference for BOQ) (To be quoted in format provided on CPP Portal)

Price bid for various Scientific Equipments (IFB-3) at ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi -387 310, Anand, Gujarat:

Sl.No	Name of the item	Quantity	Per unit price* (in figure/words) as per BOQ)
1	Rotary Evaporator	One	
2	Cold Room with Seed Storage Racks	One	
3	Water Purification System	One	

*Item should be of reputed make and suitable for high end elite users.

*Submission of samples of the quoted items is compulsory without which the rates will not be considered. Rates will be opened only for those items for which the sample is approved with respect to the requirement.

*Tax extra as applicable should be indicated separately in the column provided.

Note: The above mentioned Financial Proposal/Commercial Bid format is provide as BoQ_XXXX.xls along with this tender document at <https://eprocure.gov.in/eprocure/app>. Bidders are advised to download this BoQ_XXXX.xls as it is and quote their offer/rates in the permitted column and upload the same in the Financial Bid. **Bidder shall not tamper/modify downloaded price bid template in any manner.** In case if the same is found to be tempered/modified in any manner, tender will be completely rejected and EMD would be forfeited and tenderer is liable to be banned from doing business with ICAR-DMAPR.

ANNEXURE-IV



भारतीय कृषि अनुसंधान परिषद - औषधीय एवं सगंधीय पादप अनुसंधान निदेशालय
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ICAR-Directorate of Medicinal and Aromatic Plants Research
Boriavi - 387 310, Anand, Gujarat, India.
Ph.No:(02692) 271600,05,06 Fax:(02692) 271601. Website: www.dmapr.org.in

Name of the Firm :

Registered /Postal Address :

1	Permanent Account Number (PAN) No	
2	Service Tax Registration No. if applicable	
3	BANK DETAILS:	
	a Bank Name	
	b Branch Address	
	c Account No	
	d Type of Account (Current/Savings)	
	e MICR No	
	f RTGS/NEFT Code	

Date:

Name of the Authorized Signatory

Place:

Stamp & Signature

TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

ANNEXURE-V

To,
.....
.....
.....
.....

Date:

Sub: Acceptance of terms and conditions of tender.

Tender Reference No.:

Name of tender/work:-

Dear Sir,

1. I/we have downloaded / obtained the tender documents(s) for the above mentioned 'Tender/work' from the web site(s) namely:

As per your advertisement, given in the above mentioned website(s).

2. I/we hereby certify that I/we have read the entire terms and conditions of the tender documents from Page No. ----- to ----- (including all documents like annexure(s), schedules(s), etc.) which form part of the contract agreement and I/we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department / organisation to have also been taken into consideration, while submitting this acceptance letter.

4. I/we hereby unconditionally accept the tender conditions of above mentioned tender document(s)/corrigendum(s) in its totality / entirety.

5. I/we do hereby declare that our Firm has not been blacklisted / debarred by any Govt. Department/Public Sector Undertaking.

6. I/we certify that all information furnished by the our Firm is true and correct and in the event the information is found to be incorrect/untrue or found violated, then your department/organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours faithfully,
(Signature of the Bidder, with Official Seal)

INSTRUCTION FOR ONLINE BID SUBMISSION:

The bidders are requested to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at : <https://eprocure.gov.in/eprocure/app>.

REGISTRATION:

- Bidders are required to enrol on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link **“Online Bidder Enrolment”** on the CPP Portal which is free of charge.
- As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority Recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC /e-Token.

SEARCHING FOR TENDER DOCUMENTS:

- There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, other keywords etc. To search for a tender published on the CPP Portal.

- Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS:

- Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents – including the names and content of each of the document that need to be submitted. Any deviation from these may lead to rejection of the bid.
- Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF / JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN Card Copy, Annual Reports, Auditor Certificates etc.) has been provided to the bidders. Bidders can use "My Space" or Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS:

- Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- Bidder has to select the payment option as "Offline" to pay the tender fee / EMD as applicable and enter details of the instrument.

- Bidder should prepare the EMD as per the instructions specified in the tender document. The Original should be posted / couriered / given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD / any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- Bidders are requested to note that they should necessary submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changes. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- The server time (which is displayed on the bidder's dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Soker Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers / bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorised bid openers.
- The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- Upon the successful and timely submission of bids (i.e after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS:

- Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

DETAILS OF EQUIPMENTS AND E.M.D

Sl. No	Purchase of Item	Qty	Earnest Money in INR	File No. for reference
1	Rotary Evaporator	01	14,000/-	F.No.41-56/2016-17/SP/
2	Cold Room with Seed Storage Racks	01	10,000/-	
3	Water Purification System	01	10,000/-	

Note: EMD defined on to the Portal is MINIMUM i.e. Rs.10,000/-, but the bidder should submit the EMD as per above table.

For Example: A bidder wants to quote in first 2 items, then bidder have to pay Rs. 24,000/- As EMD

A bidder wants to quote only 2nd item, then bidder have to pay Rs.10,000/-

SPECIFICATIONS FOR EQUIPMENTS

Item No.1: Rotary Evaporator (Tentative Quantity – One)

Specification of Rotary Evaporator ~~with chiller~~

- Motor Lift
- Large digital 3.5" LCD display,
- Height adjustment : 155 mm
- Rotation Speed : 20 – 280 rpm
- Heating bath accommodates 5 liter flask
- °C Heating bath Temperature: 20 – 210 °C
- Bath overheat protection: Cut off at 5 °C
- In-built vacuum Controller
- Temp. Accuracy bath: $\pm 1^{\circ}\text{C}$
- Heating Capacity : 1300 watt
- Timer facility•
- °C Secondary cut of protection: 250°C
- Evaporating Flask 1 Liter X 2 Nos, and 500 ml 2 nos
- Receiving Flask 1 Liter X 2 nos
- With Diagonal Condenser (Cold Finger)• Power supply: 1400 Watt
- Bath quality should be double jacket, made of non corrosive stainless steel with powder coating.

Vacuum pump

- High suction capacity of 2.0 m³ /h for fastest evacuation
- Vacuum of 7 mbar.

CHILLER

- Working temperature range: -10° to 30° C
- Temperature Stability: $\pm 0.1^{\circ}\text{C}$ 50Hz.
- Pressure Flow rate: 1.80 gpm(50HZ) which is more than 6 ltrs/min.
- Tank Capacity is approx 3 ltrs.

Warranty period: Three years from the date of installation.

Handwritten signature
7/12

Item No.2: Cold Room with Seed Storage Racks (Tentative Quantity – One)

Specification of Cold room with seed storage racks

- Internal minimum working Size: 10' x 10' x 8' (W x L x H) of Capacity – 800 Cu.ft.
- Design Parameters Refrigerator.
 - Temperature Range: +2°C to +8°C ± 1°C (Adjustable)
 - Humidity Ranges: 40% to 80% (adjustable)
- Insulation for Cold Room: 60 MM (for ceiling, walls & floor PUF Panels) or above to prevent heat lose & to maintain temperature inside the room for higher longevity of Chamber.
- PUF panels: polyurethane high density insulation injecting and foaming in place between outer and inner metal skins. Prefabricated (Easy to install) panel system with Cam Lock tongue and Groove jointing will be duly sealed to prevent leakage.
- Metal skin : Outer & Inner skin of Pre Painted GI sheets with thickness 0.5mm 2 B finish
- Flooring 63mm thick PUF and 19 mm marine board with 2mm thick skin of aluminum chequered plates on the inner sides
- Pre Fabricated Cabinet Exterior: Double walled cabinet structure with Dirt repellent Powder Coated GI 0.5mm thick outer and Interior surface
 - 63 mm or above polyurethane (Puff) insulation (Puff Density : 42±2 Kg/cum).
 - Prefabricated panel system will be duly sealed to prevent leakage.
 - A Flushed door (3' x 6') (W x H) door system duly insulated will be provided. The door fitted with heavy duty Gravity Hinges (Imported) with sweep gasket to prevent leakage will be provided.
- Seed storage racks
 - Fixed racks of following sizes with height adjustable shelves at every 1' height.
 - Two numbers of 2' x 10' x 8' (W x L x H)
 - One Number of 2' x 6' x 6' (W x L x H)
 - Warranty: two years onsite warranty for the whole system

Item No.3: Water purification system (Tentative Quantity – One)

Specification for Water purification system

Pre filtration System: Three stage pre treatment system with 10, 5 & 1 micron spun filters 10" with activated carbon with pre filter 5 µm and hardness stabilizer to remove particles, free chlorine and hardness formers to protect the RO-membrane. Feed Water Conductivity up to 2000 micro Siemens/cm

Analytical and Ultrapure water purification system with multistage purification

- Should produce Pure and Ultra Pure water from tap water for analytical Life science applications
- Should be able to dispense Type I water from the tap and Type II water from the tank and also directly from the system without attachment.
- Should have R.O., D.I. and UV & Ultra Filter membrane inbuilt in the system.
- It should have a 30L or above polyethylene food grade, opaque cylindrical bottom tank with sterile vent filter to prevent contamination by microorganisms in the environment
- It should have recirculation facility from the tank to type II to maintain consistent peak water purity.
- System should have resistivity meter before and after RO module inbuilt or in the prefiltration stage to measure the percentage rejection. The percentage rejection monitored should be displayed on the screen.
- Type II system should have provision for upgradation within to higher capacity if demand increases without replacing the entire unit.
- System should alert in advance of deionization cartridge exhaustion to ensure on-time recording of the consumables.
- It should have RS232 interface and autoclavable sterile filter
- The display should be able to set for optimal reading position
- Should have real time online conductivity monitoring & display of pure water and ultrapure water.
- It should have dual wavelength UV (185/254 nm)
- It should have flexible dispenser with rocker arm to dispense pure and ultra pure water.
- System should have twin deionization pack and should allow each deionization cartridge to be used to its full potential, resulting in saving and capacity gains.
- It should have provision to attach multiple dispensers and should have recirculation facility from the point of use.
- System should have facility for continuous monitoring of TOC for type-I water.

Minimum output water quality should be :

Flow Rate	:	7 Ltrs./Hr @ 25°C or above (pure water)
	:	2 Ltrs./min or above (ultra pure water)
Dispensing Rate	:	1.0 L / min.
Type 1 Water Quality	:	18.2 MΩ- cm @ 25°C
Type 2 Water Quality	:	10 – 15 MΩ- cm @ 25°C
TOC	:	1-5 ppb
Bacteria	:	< 1 CFU/ml
Endotoxin	:	<0.001 EU/ml
RNase	:	<0.003 ng/mL
DNase	:	<0.4 pg/µL
pH	:	Effectively Neutral

Warranty: Minimum 3 years onsite warranty for the system.