



VASANTDADA SUGAR INSTITUTE
MANJARI BK., HAVELI, PUNE- 412307
Phone: 020-26902316/26902286 Fax. 020-26902244
WEBSITE: www.vsisugar.com

Tender Notice

Sealed tender offers (in Prescribed Format) are invited from reputed firms/Suppliers/Manufacturers for Supply /Erection / Installation / Commissioning / Testing and trial of ICP-OES (Inclusive Coupled Plasma Optical Emission Spectroscopy).

For Detailed Tender form & detailed Tender Notice please visit our website. The pre-bid meeting will be held on **31/10/2022 (03.00pm)** at VSI manjari Office, Last date of submission of tender form is **05/11/2022**. Vasantdada Sugar Institute reserves the right to accept or to reject any or all tenders without assigning any reason thereof.

DIRECTOR GENERAL



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TENDER NOTICE

Sealed offers in two envelopes (in prescribed format) are invited from reputed firms/Suppliers/Manufacturers for Supply /Erection / Installation / Commissioning / Testing and trial of ICP-OES (Inclusive Coupled Plasma Optical Emission Spectroscopy).

As detailed below;

Sr. No.	Item/Description	Tender form fees	EMD Amount
1.	ICP-OES (Inclusive Coupled Plasma Optical Emission Spectroscopy)	Rs. 5,900/- GST Incl.	Rs.75,000/-

For further details, please visit website. The tender form can be downloaded from website during the period from 18.10.2022 to 05.11.2022. The Pre bid meeting will be held on **31/10/2022 (03.00 PM)**. Last date for submission of Tender form is **05/11/2022**. Institute reserves the right to accept or to reject any or all tenders without assigning any reason thereof.

DIRECTOR GENERAL

Tender Terms & Conditions

1. Please quote for the rate, GST, other taxes, freight, warranty, loading & unloading, installation, commissioning and successful operation separately.
2. Offer should be valid for 90 days.
3. Demand Drafts of Tender form fee and Earnest money deposit (as mentioned in tender notice) should be of Nationalized/schedule Bank in favor of Vasantdada Sugar Institute, Pune.
4. Supplier/Agency will have to complete the order/work as per the purchase/work order. If the supplier/agency failed to complete the job within 30 days, penalty equal 0.5 of cost of contract value per week will be recovered as liquidated damages.
5. The Institute is not responsible for any accidents/claims during the transportation/work/installation of the material/equipment.
6. Supplier/Agency should submit the delivery challan, without delivery challan/invoice unloading will not be allowed.
7. The Supplier/Agency should give prior intimation before unloading.
8. No advance payment is allowed.
9. Earnest money deposit will be forfeited if supplier withdraw his offer or refuse to sign an agreement of supply.
10. The decision of Director General, Vasantdada Sugar Institute is binding on supplier in respect of the entire dispute.
11. T.D.S. provisions of I.T. Act are applicable, and according T.D.S. at applicable rate would be deducted from bill amount.
12. Selected Supplier/Agency will have to deposit the security deposit of 4 % of the total order cost and sign an Agreement before placement/receiving of purchase order on non-judicial stamp paper of Rs.500/-.
13. The demand drafts of tender form fee and earnest money deposit should be submitted along with offer in envelope no.1 (Technical bid)
14. 90% payment will be made within 15 days against completion of work as per order/specification at our site. Balance 10 % amount will be made on submission of satisfactory work completion report of user department within 30 days from the date of receipt of bill.
15. If the Supplier/Agency failed to complete the work ordered, the same would be purchased from other agency at the risk & cost of the firm.

IMPORTANT: The Tender should be submitted in two separate sealed envelopes in the following manner with clearly mentioning the subject of the tender.

Envelope No. 1. : D.D. of Tender form fee and EMD, a copy of firm registration, a copy of GST registration, a copy of PAN card, technical manpower available, the list of customers for whom similar Website development work done. Technical Information & brochure, if any

Envelope No. 2. Commercial offer only. The rates should be quoted both in words and in figures. In case of variation in rate quoted in figures & word, the rate quoted in word shall be considerable.

Chief Accountant & I/c. Purchase

TENDER FORM

(Tender form for _____)

From: _____

Ph/Mobile No. _____

To,
The Director General,
Vasantdada Sugar Institute,
Manjari Bk., 412 307,
Tal. - Haveli, Dist. - Pune

Sub: Tender for “ _____ ” ..

Dear Sir,

As per your tender notice published in Daily _____ dated: / /2022,
We are submitting herewith our lowest offer as under.

Sr.No.	Particulars	Rate	Quantity	Amount Rs.

Note: The rate should be quoted in words & figure.

Terms & Conditions:

1. Taxes :
2. Delivery :

Declaration: I/We agreed to supply the material/complete the work within stipulated period and also accept all terms and conditions mentioned in tender.

Yours faithfully,

Signature:

Name :

Stamp of the firm:

Technical Specifications for Inductive Coupled Plasma- Optical Emission Spectrometer (ICP-OES)

<p>System (General Requirement)</p>	<p>Vendor must be reputed in the field and must be doing this business for more than five years.</p> <p>The ICP- OES system of latest model should be</p> <ul style="list-style-type: none"> • a bench top model of appropriate size, (it should not be bulky) • able to determine trace and measure elements in diverse kind of samples such as soil, sludge, ground water, waste-water samples, other solid or liquid waste Drinking water and a;; waer sa,[;es Hazardous waste samples samples, etc. • System should be able to determine, major, minor and trace elements in a single run measurement i.e. should able to determine from ppb to ppm level without dilution in a single run. • The system should have appropriate safety & service diagnostic facility. • After sales services and 24h online support will be preferred • Attachments or add-on for specific metal analysis example mercury or halogen – should be quoted separately, in such case the system need to be upgradable suitably for the element/s • Offer should clearly mention essential and optional accessories • Detection level ((lower detection limit (LDL)/Instrument Detection Levels (IDL)) for all elements detectable on the quoted instrument must be provided in the offer. • Linear dynamic range (LDR) for all the elements need to provide in the offer <p>On site installation, demonstration, IQ/OQ/PQ and training to the lab staff is essential & it should be free of cost.</p> <p>The instrument should be fully PC controlled with following specifications.</p>
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<p>Required specification for ICP-OES system</p>	
<p>Spectrometer</p>	<ul style="list-style-type: none"> • The instrument must be simultaneous/ hybrid simultaneous DUAL VIEW (Radial and Axial) for fast sample analysis. Viewing system must be computer controlled. • The instrument must be equipped with poly- chromators or equivalent technology based spectrometer for the best accuracy and precision. • The instrument optical warm up time should be as minimal as possible (preferably not more than 15-20 minutes) •
<p>Sample Introduction system</p>	<ul style="list-style-type: none"> • The system should have integrated Sample Introduction system with minimum four channels peristaltic pump with automatically pump speed for a fast pre-flush and fast rinse option to avoid carryover and for fast sampling. • The sample introduction system (including nebulizer, spray chamber and injector) should be separate (dedicated) corrosion resistant for all kind of sample matrices including HF acids or highly alkaline solutions like 30% (w/v) NaOH - for higher sensitivity, accuracy, precision & lesser memory effect. • peristaltic pump should have adjustable contact pressure for uniform sample introduction for maximum flexibility • system should have flexibility to set all gas flows by operator.
<p>Torch design</p>	<p>System should have a torch design suitable to handle any kind of matrix and suitable for both the view (Advanced technology will be preferred for torch system)</p> <p>Torch should have plug-and-play design for installation and maintenance as well as have appropriate safety precautions.</p>

<p>Gas flow control</p>	<p>System should be equipped with MFC/Electronic flow controllers for precise control of variable gas flow rate for the flexible operation Safety feature such as auto-shutdown of plasma in case of failure of interlock/gas supply or any other similar technical reasons All gas flow including auxiliary, plasma gas, nebulizer and any other should be variable and user should have flexibility to optimize it as per his requirement– with mass flow control or Electronic/pneumatic flow controllers.</p> <ul style="list-style-type: none"> • Argon gas flow – appropriate to minimize its consumption and reduce operational cost - Preferably not more than 12-14L/minutes • Total gas consumption (includes argon and auxillary or purge gas or any other) should be as low as possible preferably <20 l/Min • System must by fully interlocked against gas failure
<p>Detector and wavelength range</p>	<ul style="list-style-type: none"> • Instrument should be equipped with Charge Coupled device (CCD) Detector/Charge injection Device (CID)/CMOS • The actual resolution of the system should ≤ 0.009 nm at 200 nm or better. • The spectrometer must cover spectral range of at least 165/170 nm to 900 nm or better with capability of measuring UV wavelengths without any compromise on sensitivity. • System should be able to analyze all wavelengths in a single run by axial and radial views in a single method. • It should have the facility to add any wavelength in method which is not available in library and scan it for analysis. Selection of any wavelength in any mode (axial/radial or both) as per user's discretion • Automated attenuation of axial and radial plasma views, with extended working range for mid/high-range concentration. • Instrument must have switching between axial and radial plasma views by transfer optics in one method for increased flexibility and productivity.
<p>Plasma View</p>	<ul style="list-style-type: none"> ➤ Torch design must support automatic alignment facility for high matrix samples. ➤ The system should include complete dual viewing optics under computer and software control. ➤ The system should be able to analyze any wavelength needed can be used in radial, axial, mixed viewing (Radial & Axial) modes or synchronous dual view in a single run. ➤ Any concentration from ppb to high ppm should be able to run with Axial and Radial view in single run and single method. ➤ The system should be able to ignite the plasma automatically and should shut off automatically after the run. ➤ The RF coil should be totally maintenance free and if it is consumable then suitable quantities should be added in main quote to use it upto three years.
<p>RF generator</p>	<ul style="list-style-type: none"> ➤ Free running solid state RF generator must run at frequency of 27MHz or 40 MHz (preferred 40 MHz) with suitable power wattage adjustable up to minimum 1500 watts or better with 1 watt increment (or better options) ➤
<p>Back Ground correction and Spectral interference</p>	<ul style="list-style-type: none"> ➤ System should have the facility of online/Simultaneous background correction. ➤ The system must be able to read and apply manual or automatic spectral interferences correction in addition to background correction. ➤ The system should correct or automatically stabilize the wavelengths in whole wavelength range. ➤ System should have software corrections like Inter Element Corrections (IEC), Multi-spectral fitting (MSF) or equivalent for the better resolution and background corrections automatically through software.

<p>Startup and Gas consumption</p>	<ul style="list-style-type: none"> ➤ System having Argon gas consumption as minimal as possible shall be preferred. ➤ Please mention complete Argon consumption in L/min & per sample having 30 elements including Plasma, Auxiliary, Nebulizer, purging gas flows- along-with analysis time. ➤ Vendor has to mention the consumption of various gases during standby mode and routine analysis mode. ➤ Any other gas required should be clearly mentioned and cylinders should be provided. ➤ System should have the least warm up time preferably less than 15-20 minutes and should be ready to aspirate solution with in least possible time from main power off position. (Please mention time in minutes from switching off from main switch to the first sample aspiration. satisfactory repeatability to be demonstrated to ensure stability of plasma.) ➤ System should have the maintenance free provision like shear gas by using compressed air or any better system to cut the tail plume of plasma. If any gas like Air/Nitrogen or argon is required then gas consumption should be mentioned in L/min (for both elements below & above 190nm.) ➤ If consumables /Spares required for above point that should be quoted for at least 03 years of operation. ➤ The system should have suitable gas ports for Plasma gas, Detector/Optics gas and cone/sheath/shear gas.
<p>Addition to cover wide range of element or add-on</p>	<p>If the system requires dedicated Hydride generator kit, it should be included for hydride forming elements – quoted with main instrument. Instrument suitable for halogens should be quoted separately, but instrument without halogen must be able to upgrade suitably for halogens Additional consumables like 3 nebulizer kits (HF acid resistant), 1 alumina injector and 2 torches should be quoted in the main offer Additional other consumables should be quoted for 3 years of smooth operation.</p>
<p>Software</p>	<ul style="list-style-type: none"> • System should be supplied with software package for PC controlled operation, monitoring and documentation of all processes on the instrument • Software should enable for quantitative analysis, method of standard addition etc. • There should be flexibility to export data to excel file from instrument software. • Quality control protocols including preparation blanks, multiple quality control standards, calibration, check samples, spike recoveries, duplicates, calibration failure and QC limits. • Software should enable user for Linear through zero, Linear Intercept, Weighted linear, Standard additions methods, addition calibration methods in software. • Default settings for each element should be incorporated, Extensive line, interference and method library with line favorite tool, Free selection of all plasma and evaluation parameters including plasma view and signal integration mode should be available. • It should control third party accessories like auto-sampler, Auto dilution, auto-calibration, Ultra sonic nebulizer accessories' as required. • The software should enable the user to use interference correction techniques like Element Corrections (IEC), Multi-spectral fitting (MSF) or equivalent etc. • Its accessories should be clearly laid-out, multi-language user interface and powerful user-oriented optimization routines. • Software should have facility for selection from multiple calibration modes: linear and non-linear evaluation with variable weighting, standard addition, matrix matching. • Selection of up to 30 calibration points with two-point recalibration with display of the recalibration factor or better

<p>Accessories</p>	<ul style="list-style-type: none"> • Refrigerated chiller: Coolant based processed fluid and temperature range must be -10 (minus ten) to 40 deg C or better. The system should not use water to retain life of chiller and instrument. It should be of original manufacturer of imported origin • Required exhaust system or similar • For parameters such as Hg, As, Halogens etc. separate price should be quoted for required accessories and clearly mention which elements will get covered by the respective accessory • User and hardware manuals should be provided in both hard and soft copies. • Appropriate computer system should be specified in the offer with compatible printer and specify required version, RAM, processor type, Storage memory, etc. • All required soft wares and provision of its updation to be clearly mentioned in the offer • Other accessories like air compressor, Argon cylinders (minimum qty 4 – cylinder size 47 L), nitrogen (if required) cylinders (minimum qty 2) having suitable dual stage regulator and purification panels should also be included. Any other gas or system required – it should be clearly mentioned and number of cylinders should be two • Gas purification system and • Any power backup of suitable capacity should be clearly quoted. • Multi-element standard solution. (1,000 µg/mL or similar). should be quoted in the offer. • Separate Hg and As standards should be quoted. • Apart from the above, any other arrangements/accessories required need to be clearly specified and mentioned in the offer • Optional accessories must be quoted separately
<p>Other</p>	<ul style="list-style-type: none"> • Pre installation requirements- Complete technical details of pre installation requirement should be furnished along with the technical bid. • Our institute will only provide the installation space/room, required electrical outlet and water connections. • Vendors are expected to supply all other accessories for installation and smooth operation. • Suitable tool kit, spares and consumables kit is to be included in the order and the items supplied should be mentioned. • There should be a provision in software to view plasma for method development and remote diagnostics. • After finalization of order the selected vendor must send his technical expert for preparations related to installation • Minimum five day on-site training to staff of the Department is essential • Please mention the lowest detection limit for all detectable elements using the quoted instrument
<p>System interlock</p>	<p>System should be able to monitor water flow, shear gas pressure, argon pressure, sample compartment door closure and displays the interlock status on the computer screen.</p>
<p>Consumables</p>	<p>Clearly mention essential consumable for at least three years of operation In addition, optional consumables may be quoted if required.</p>
<p>Product warranty</p>	<p>Minimum one year standard product warranty is must from the date of installation During the first year, preventive and/or break down maintenance must be provided by the supplier (first year maintenance) without any extra charges During warranty period upgrades of the software (if any) should be provided free</p>

Country of Origin and conditions	<ul style="list-style-type: none">a) Need to quote the Country of Origin & if they are Dealers or Resellers, should have to declare the OEM supplier & it's country of Origin.b) If the vendor is showing that the Country of Origin is from <i>Indian Subcontinent i.e Bangladesh, Nepal or Sri Lanka</i>, in such case also they need to certify that OEM is from that country, or it is only via media and no manufacturing or assembling is being done.c) Vendor should furnish evidence of at least having sold such equipment's in 5 or more every year from the past 5 years.d) Vendor needs to submit at least 5 Performance Certificate from their user of the quoted model and should facilitate the demonstration of the equipment quoted during technical evaluation as & when asked by buyer/customer.e) Vendor should submit at least 3 publications or research articles or Application Notes or features asked in tender or similar authentic data. These all should be available on public domain.f) Vendor must have an Application Lab in India to support method development and trouble shooting. It should be clearly mentioned with location.
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