



संशोधनेन संवृद्धिः

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

TENDER NOTICE

Sealed offers in two envelopes (in prescribed format) are invited from reputed firms/Suppliers/Manufacturers of Equipment's as detailed below;

Sr. No.	Item/Description	Tender form fees	EMD Amount
1.	A)Hydrogen Injection System & Hydrogen Flow Meter (As per Specifications) Qty : 1 Set (As Per Specification)	Rs.6,018/- Inc. GST	Rs.85,000/-
	B) Complete Ethanol Injection System & ECU for Ethanol and Hydrogen Qty : 1 Set (As per Specification)		

For further details, please visit website. The tender form can be downloaded from website during the period from 24.10.2024 to 05.11.2024. The Pre bid meeting will be held on **30/10/2024 (03.00 PM)**. Last date for submission of Tender form is **05/11/2024**. 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 of Equipment's required for Diesel/ Other Fuel Engine as detailed below;

Sr. No.	Item/Description	Tender form fees	EMD Amount
1.	A)Hydrogen Injection System & Hydrogen Flow Meter (As per Specifications) Qty : 1 Set (As Per Specification)	Rs.6,018/- Inc. GST	Rs.85,000/-
	B) Complete Ethanol Injection System & ECU for Ethanol and Hydrogen Qty : 1 Set (As per Specification)		

For further details, please visit website. The tender form can be downloaded from website during the period from 24.10.2024 to 05.11.2024. The Pre bid meeting will be held on **30/10/2024 (03.00 PM)**. Last date for submission of Tender form is **05/11/2024**. 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 Separate price should be Quoted for **Item A & Item B**
2. Please quote for the rate including freight, warranty, loading & unloading, installation, commissioning and successful operation and taxes separately.
3. Offer should be valid for 120 days from the last date of submission of Tender
4. 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.
5. Supplier/Agency will have to complete the order/work as per the purchase/work order. If the supplier/agency failed to complete the job/work within 30 days, penalty equal 0.5% of cost of contract value per week will be recovered as liquidated damages.
6. The Institute is not responsible for any accidents/claims during the transportation/work/installation of the material/equipment.
7. Supplier/Agency should submit the delivery challan, without delivery challan/invoice unloading will not be allowed.
8. The Supplier/Agency should give prior intimation before unloading.
9. No advance payment is allowed.
10. Earnest money deposit will be forfeited if supplier withdraw his offer or refuse to sign an agreement of supply after opening of offers.
11. The decision of Director General, Vasantdada Sugar Institute is binding on supplier in respect of the all dispute.
12. T.D.S. provisions of I.T. Act are applicable, and according T.D.S. at applicable rate would be deducted from bill amount.
13. 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/-.
14. The demand drafts of tender form fee and earnest money deposit should be submitted along with offer in envelope no.1 (Technical bid)
15. 100% payment will be made within 15 days after completion of work as per order/specification at COEP,Pune & submission of satisfactory work completion report of user department within 30 days from the date of receipt of bill.
16. Security deposit shall remain in the hands and custody of VSI without interest up to warranty period.
17. 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: / /2024,
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:

Annexure - A

Hydrogen Injection System & Hydrogen Flow Meter

Includes the below mention items with specifications.

Component Name	Nos.	Specification
1) Hydrogen Supply and Safety System		
Hydrogen Gas Leak Detector	1 Nos.	<ul style="list-style-type: none">• Name of Gases Detected: Hydrogen (H₂)• Power Supply: 24 VDC/12VDC• Display Type: Digital• Sensor Type: Semiconductor• Sound Level: <80 dB (In one meter)• Accuracy: Plus, or Minus 2 % of Full Scale• Operating Voltage: 12 VDC-28VDC Typically 24VDC• Power Consumption: Less than 3 Watt
Low Pressure & High Pressure Reducing Regulator	1 Nos.	<ul style="list-style-type: none">• Materials of construction• Body: SS316L / SS316 / SS304 / Brass Bar Stock• Bonnet: SS316L / SS316 / SS304 / Brass Bar Stock• Bull Nose: SS316L / SS316 / SS304 / Brass• Cylinder Inlet Connector Nut: SS316L / SS316 / SS304 / Brass• Inlet Pressure: 280 BAR• Outlet Pressure: 0.2 BAR- 16 BAR• Outlet Connector: 1/8" OD• Diaphragm: SS 316• Seat: PTFE• Filter: SS 316 - 10 Micron Seat• Return Spring: SS 316• Button Spring: MS with Nickel Plated• Popet: SS 316• Wetted Lubricant: PTFE Based• Knob: ABS PLASTIC with Brass inserts• Gas Purity: Level of grade 5.0 (99.999%) and higher
Flash back Arrestors	1 Nos.	Flash Back Arrestor in Cylinder Line Flash Back Arrestor Before Gas Injector <ul style="list-style-type: none">• Operating pressure [bar]: 1.5 maximum• Capacity: 19 m³/h

Hand Shutoff Valve	1 Nos.	-
Pressure Gauges (0-3 Bar)	2 Nos.	<ul style="list-style-type: none"> • Accuracy: ±2.5% • Brand: Kennedy • Case Material: Plastic • EAN: 5036140103177 • ECLASS Code: 27294290 • Face Diameter: 50mm • Gauge Connection Location: Centre Back • Maximum Pressure Measurement: 3 bar • Minimum Pressure Measurement: 0 bar • Port Size: G1/8in. • Pressure Gauge Type: Pressure • UNSPSC Code: 27131600
Pipe Line 8mm OD – 6 meter Length	1 Nos.	<ul style="list-style-type: none"> • Outer Diameter: 8mm • Length: 6 meter • Material: Mild Steel • Coating: Zinc • Shield material: Plastic
Hydrogen Solenoid Valve	1 Nos.	<ul style="list-style-type: none"> • Function: 2/2-way solenoid valve, NC • Pressure range: 10 - 350 bar • Test pressure: 525 bar • Burst pressure: 1400 bar • Port connections: SAE 6 (UNF 9/16 - 18) • Orifice size: 8 mm • Housing material: Stainless steel • Mounting position: Any • Media: Hydrogen • Ambient temperature: -20° ... +50 °C • Rated voltage 24 V DC (10W): 230 V AC (7W / 12VA)
Temperature Probe	1 Nos.	-
Injector (Rail)	2 Nos.	<ul style="list-style-type: none"> • Ohms: 1.9 • Operating Temperature: -4 to 257 Degrees Fahrenheit • Max Peak Current (at 12V) per Min: 6.4A • Max Hold Current: 2.0 A • Operating Pressure: 43 psi • Maximum Pressure: 50 psi • Injection Time (Opening): 2.36ms • Injection Time (Closing): 1.2ms • Inductance: 4mH at 120 Hz

		<ul style="list-style-type: none"> • Orifice Size: 4.0mm • Flow Rate (Litre Per Minute): 175
Crank Angle Sensor	1 Nos.	-
Hydrogen consumption measurement method – the gaseous injectors are pre-calibrated to display volumetric flow rate of hydrogen or any other gaseous fuel.	1 Nos.	-
Main hydrogen cylinder (Clients Scope)	1 Nos.	-
Computer (Clients Scope-COEP, Pune)	1 Nos.	-
2) Hydrogen Flow Meter		
Hydrogen Flow Meter	1 Nos.	<p>Flow transmitter;</p> <ul style="list-style-type: none"> • Working Principle: Mass-Coriolis, • Signal Processing Type: Digital, • Output Signal: 4 To 20 Ma + Hart • Measuring Range: 0 To 108 Kg H, Power. • Electrical: 18 To 100 Vdc • Housing Material: Aluminium • Sensor Connection Diameter: Dn 1/2 Inch • Sensor Connection Face: Asme Thread B1.20.1 Npt-M • Sensor Material: Body Ai Aisi 304l • Protection: Ip 66 – Nbr Iec 60529

Annexure - B

Complete Ethanol Injection System & ECU for Ethanol and Hydrogen

Includes the below mention items with specifications,

Component Name	Nos.	Specification
Ethanol Fuel Pump - 2 Nos	1 Nos.	<ul style="list-style-type: none">• ECU processor: Infineon• Camshaft position: Cam trigger wheel• Cam position sensor: Hall effect sensor• Map: NTC• Software: Engine control system• Fuel Filter: Bosch• Pre-supply Fuel Pump: Bosch – 2nos• Fuel Rail: Bosch• Connecting pipes: Stainless steel• Injector: Solenoid Injector – 4 Nos Ethanol Injection Kit Capabilities: <ul style="list-style-type: none">• Start angle of injection - (The user can set the end of injection angle as desired)• Start angle for spark ignition - (The user can set the spark timing)• Injection Duration - (Calculated by the ECU)• Injection pressure - (2.8bar)• Calibration charts are provided for Injection Quantity at various pressure• Fuel Measurement System Burette with Optical Sensor
Fuel Rail - 1 No		
Ethanol Fuel Injector - 4 Nos		
Cam Sensor - 1 No		
Wiring Harness - 1 No		
ECU - The ECU is capable to drive both Liquid injectors. - 1 No		
Crank Sensor - 1 No		

Electronic Control Unit (ECU) for Hydrogen Injection System	1 Nos.	<p>The Electronic Control unit is provided with two variable controls: -</p> <ol style="list-style-type: none"> 1. Start of injection: Electronic Control unit receives the signal from the crankshaft position sensor and detects the engine crank angle. The user can change the start of injection (Advance or retard) by using a graduated potentiometer knob. The potentiometer is connected to the ECU. 2. Start of Ignition: The Spark Timing be varied from 0 – 50 Deg BTDC. <p>Injection Duration (Throttle): The injection duration can be also being controlled by using a graduated potentiometer knob provided on the ECU.</p>
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