



**SARDAR VALLABHBHAI NATIONAL
INSTITUTE OF TECHNOLOGY , SURAT**
Tel: 0261-2223371 to 74
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CORRIGENDUM

Last date for Sealed tenders of 1. “Slurry Jet Erosion Test Rig” No. **MED/DST/JVM/71/19-20** & 2. “Dedicated Computerised Car Air Conditioning Test Rig Using New Low GWP R1234yf Refrigerant” No. **MED/ADP/IMPRINT/ 191/19-20** extended from 19/08/19 to 09/09/19. Refer www.svnit.ac.in for more details.

DIRECTOR



**SARDAR VALLABHBHAI NATIONAL
INSTITUTE OF TECHNOLOGY SURAT**
Tel: 0261-2259571 -2259582-584
Fax: 0261-2228394

SVNIT

TENDER NOTICE

Sealed tenders are invited in duplicate from the supplier/manufacturer/distributor/vendor for the supply of the following item.

Item	Qty
Dedicated computerized car air conditioning test rig using new low GWP R1234yf refrigerant	1 set

Tender documents will be available on request during office hours from 11/07/2019 to 09/09/2019 from Mech. Engg. Dept. of the institute on payment of 500/- towards nonrefundable tender fee to be remitted by cash for tender documents delivered in person or 550/- DD drawn in favour of "Research & Consulting A/cs" in case tender documents are to be sent by post. The sealed tender documents will be accepted up to 5:00 PM, 09/09/2019 on all working days (Monday to Friday). The tentative date of opening of tender is 11/09/2019 at 3:00 p.m. The tender documents may also be downloaded from institute website www.svnit.ac.in. However, the tender fee must be sent in the form of a DD for 500/- with the sealed tender documents. The director reserves the right to reject any or all the tender items without assigning any reasons whatsoever thereof.

No. MED/ADP/IMPRINT-2/191/19-20

DIRECTOR

- **Pre-Bid Meeting with prospective suppliers will be held on 17 July 2019 at 12.00 pm at MED Office (MG-1).**

TENDER SUBMISSION DATE
EXTENDED TILL 9TH SEPT 2019

TENDER DOCUMENT

SUPPLY OF

**Dedicated computerized car air
conditioning test rig using new low GWP
R1234yf refrigerant**



**DEPARTMENT OF MECHANICAL ENGINEERING
S. V. NATIONAL INSTITUTE OF TECHNOLOGY
SURAT - 395007, GUJARAT
(Year – 2019-20)**

SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT

**TENDER DOCUMENT FOR “DEDICATED COMPUTERIZED CAR AIR CONDITIONING TEST RIG USING
NEW LOW GWP R1234YF REFRIGERANT” WITH SPECIFICATIONS AS PER TECHNICAL
SPECIFICATION SHEET AT MED, SVNIT, SURAT**

Sr. No.	Name of Equipment / Instrument	Ref. No.	Qty.
1	Dedicated computerized car air conditioning test rig using new low GWP R1234yf refrigerant	No. MED/ADP/IMPRINT-2/191/19-20	1 set

- The SardarVallabhbhai National Institute of Technology, Ichchhanath, Surat (SVNIT, Surat) invites sealed bids from the experience & competent supplier for **“DEDICATED COMPUTERIZED CAR AIR CONDITIONING TEST RIG USING NEW LOW GWP R1234YF REFRIGERANT”** with Specifications as per Technical Specification Sheet at MED, SVNIT, Surat.
- Eligible bidders should provide items as per technical specification and services expectations and restore functionality as defined in **“Technical Requirements Sheet”** in this tender; at the terms and conditions specified in the section **“General Terms & Conditions”**; provided.
- The entire tender document comprises of various sections as listed below:
 - I. Preamble (this page)
 - II. Schedule of Tender
 - III. Technical Requirements Sheet (Technical envelop)
 - IV. General Terms & Conditions (Technical envelop)
 - V. Declaration (Technical envelop)
 - VI. Summary Sheet (commercial envelop)
- A complete set of bidding documents must be downloaded from the institute web-site <http://www.svnit.ac.in> Non-refundable tender fee as specified in the bid document by way of demand draft have to be remitted with the bid in favor of, **Research and Consulting A/c’s Payable at Surat**, with tender documents. Without the tender fees being remitted, the tender will not be considered.
- All bids must be accompanied by a **bid security (EMD)** as specified in the bid document and must be delivered to the above office latest by the date and time indicated.
- Bids will be opened in the presence of Bidders' representatives who may choose to attend on the specified date and time.
- In the event of the date specified for the bid receipt and opening, being declared as a closed holiday for SVNIT, the due date for submission of bids and opening of bids will be the following working day at the appointed times.
- **The bid from the bidder who was found in fraud activity with SVNIT or on the name of SVNIT will not be allowed for bidding. The bid from such bidder will not be accepted and will be straight away rejected. Also the bid submitted in consortium with such bidder will be rejected and if such information is found later then the order issued will be terminated immediately without any notice.**

SECTION II: SCHEDULE OF TENDER

1.	Pre-Bid Meeting with suppliers	17/07/2019, at 12:00 p.m. (MED Office MG-1)
2.	Last date for submission of Tender at SVNIT	19/08/2019, upto 5:00 p.m. 09/09/2019 UPTO 5.00 pm (REVISED)
3.	Date of Opening of Tender of Technical requirements	11/09/2019 at 3:00 p.m. 11/09/2019 at 3.00pm (REVISED)
4.	Date of opening of commercial offer	23/08/2019 at 3:00 p.m.(tentative) 13/09/2019 at 3.00 p.m (tentative)
5.	Place of opening of bids	Office of Head, Mechanical Engineering Department, SVNIT, Surat.
6.	Address for communication	Director, S V National Institute of Technology, Ichchhanath, Surat – 395007, Gujarat
7.	Tender fee to be remitted with tender by only Demand Draft drawn in favor of “ Research and Consulting A/c’s ” Payable at Surat	Rs. 500/- (Rupees Five Hundred only) DD No.: _____ & Date: _____ Name of Bank: _____ Branch : _____
8.	EMD to be remitted with tender by only Demand Draft drawn in favor of “ Research and Consulting A/c’s ” Payable at Surat.	Rs. 15,000/- (Rupees Fifteen Thousand only) DD No.: _____ & Date: _____ Name of Bank: _____ Branch : _____

Note:

- **Demand Draft of EMD and Tender Fee must be separate otherwise tender will be rejected.**
- Tender offer must be sent by **Registered Post A.D./Speed Post/Hand delivery** only during office hours.
- **Price in Indian Rupees** at F.O.R. SVNIT, Surat.

SECTION III: TECHNICAL REQUIREMENTS SHEET

Supply of “Dedicated computerised car air conditioning test rig for min 1193 cc engine belt driven with electromagnetic clutch using new low GWP R1234yf refrigerant.

Experimental capabilities:

Computerised car air conditioning test rig must be capable of doing following experiments

1. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various evaporator temperature (evaporator load)
2. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various condenser temperature (condenser load)
3. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various compressor speed.
4. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various refrigerant charge.
5. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various fan/blower speed of condenser.
6. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various fan/blower speed of evaporator

Dedicated computerised car air conditioning test rig should consist of

1. **Suitable capacity belt-driven with electromagnetic clutch variable displacement compressor** of standard make (Subros/Sanden/Denso) to above mentioned engine (min 1193 cc) compatible with R1234yf refrigerant. The compressor should be driven by variable frequency (speed) drive motor of suitable capacity which cover whole range of the rotational speed in actual vehicle (600 to 4500 rpm).
2. **Air cooled mini/micro channel condenser** compatible to R1234yf refrigerant compressor with fan/blower having variable speed provision. Mini/micro channel condenser placed in suitable duct with provision to change its heating load by changing its inlet air temperature by suitable capacity electrical resistance heater/coolent. The heating load can be changed via variac (voltage regulator) and temperature can be set of air from 25 °C to 50 °C at inlet to condenser. There should be provision to change inlet air humidity also. The complete assembly of compressor and condenser should be in one insulated chamber of require size to maintain constant temperature and humidity. The screen should be placed at suitable location to streamline the flow of air in the duct.
3. **Micro/mini channel Evaporator** coil compatible to above compressor with fan/blower having variable speed provision. Micro channel evaporator placed in suitable duct with provision to change its cooling load by changing its inlet air temperature by suitable capacity electrical resistance heater. The cooling load can be changed via variac (voltage regulator) and required constant temperature can be set up. The complete assembly of evaporator and expansion device should be in one insulated chamber of require size to maintain constant temperature and humidity. Cabinet volume should be equal to inside volume of actual car of above capacity. The screen should be placed at suitable location to streamline the flow of air in the duct. There is provision to recirculate the same air or mix the some fresh air with recirculated air.
4. Suitable Thermo static expansion valve - block type of standard make.
5. **Air conditioning test rig is to be made for new R1234yf refrigerant hence in the test rig compressor used must be compatible with R1234yf refrigerant and not of other refrigerants. The other**

components i.e condenser, evaporator and expansion valve must be of suitable size compatible to R1234yf compressor used. The necessary proof of purchase of R1234yf compressor and its suitable sized other components (condenser, evaporator and expansion valve) to make test rig must be supplied by supplier.

6. **Air velocity measurement** of air flowing over condenser and evaporator by anemometer of standard make (Testo/Lutron) with accuracy of $\pm 2\%$ and as well as by pitot tube.
7. **Energy meters:** - Separate energy meters of standard make (Schneider Electric or Larsen & Toubro) for measurement of power consumption by the **i.** compressor motor assembly **ii.** heating coil of condenser **iii** heating coil of evaporator with Class 1 accuracy (0.5% of full scale deviation)
8. **Measurement of power consumed** by the compressor using Torque and speed measurement device of standard make.
9. **Flow meter :-** suitable **flow sensor of standard make** to measure liquid refrigerant flow rate in lph or m^3/min with accuracy $\pm 1\%$.
10. **Pressure sensors:** Pressure transducer 2 Nos of with accuracy:- $\pm 2\%$ standard make (Danfoss/Honeywell) with pressure measuring range (0-5 bar for suction pressure and 0 bar – 20 bar discharge pressure). Pressure sensor locations: 1. Suction of compressor 2. Delivery of compressor.
11. **Differential pressure sensors:** Differential air pressures sensors across the evaporator and Differential air pressure sensors across the condenser to measure the pressure drop of air in both heat exchangers.
12. **Temperature Sensors:** - RTD PT100 Type (8 Nos) with Class A accuracy which can measure the temperature of refrigerants at various locations mentioned below: **i.** The suction of compressor. **ii.** The discharge of compressor **iii.** The inlet of condenser **iv.** The exit of condenser **v.** The inlet of expansion valve **vi.** The exit of expansion valve **vii.** The inlet to evaporator **viii.** The exit to evaporator
Temperature Sensors: - RTD PT100 Type (8 Nos) with Class A accuracy which can measure the temperature of air at various locations mentioned below
Condenser duct: **i.** Air inlet temperature to condenser **ii.** Air outlet temperature to condenser **iii.** Air inlet temperature to heater in duct **iv.** Air outlet temperature to heater in duct
Evaporator duct: **v.** Air inlet temperature to evaporator **vi.** Air outlet temperature to evaporator **iii.** Air inlet temperature to heater in duct **iv.** Air outlet temperature to heater in duct
13. 32 channels data acquisition system of standard make (Agilent or equivalent) along with PC (Core i5 (7th Gen)/4 GB DDR4/1 TB/Windows 10 Home) interfaced with system for recording all the pressure and temperature changes preferably every 10 seconds.
14. Proper insulation of the suction line must be provided using elastomeric foam.
15. Denfoss or equivalent standard make HP/LP cut off switch
16. Receiver with two service valve, gas charging valve, filter/drier and solenoid valve must be provided.
17. **Pressure gauges:** - 4 analog pressure gauges (Units- bar) with accuracy of ± 0.1 bar for measuring pressure at 1. Suction of compressor 2. discharge of compressor. 3. Inlet to expansion valve 4. Exit to expansion valve
18. Digital voltmeter and ammeter of standard make to measure the power of compressor and heaters.
19. Temperature selection switch for displaying temperature at various points and LCD display showing temperature and pressure values at various locations.
20. The unit with control panel should be mounted on fabricated rigid stand with caster wheel. All parts of the model should be brand new and fitted on wooden base. The apparatus should be supplied with a protective show case unit.

The vendor should submit a point-wise confirmation to be specifications in tabular format in their offer and any deviation has to be specified clearly in the offer. **(Refer Annexure-A).**

Annexure-A

(This must be typed on Supplier’s Letterhead & submitted along with the offer)

TECHNICAL SPECIFICATION

Supply of “Dedicated computerised car air conditioning test rig for min 1193 cc engine belt driven with electromagnetic clutch using new low GWP R1234yf refrigerant.

Experimental capabilities:

Computerized car air conditioning test rig must be capable of doing following experiments

1. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various evaporator temperature (evaporator load)
2. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various condenser temperature (condenser load)
3. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various compressor speed.
4. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various refrigerant charge.
5. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various fan/blower speed of condenser.
6. To find cooling capacity, compressor electric power, actual COP, theoretical COP, discharge temperature of compressor of the system at various fan/blower speed of evaporator

Sr. No	Specifications given as above in Tender	Supplier specifications
1	Suitable capacity belt-driven with electromagnetic clutch variable displacement compressor of standard make (Subros/Sanden/Denso) to above mentioned engine (min 1193 cc) compatible with R1234yf refrigerant. The compressor should be driven by variable frequency (speed) drive motor of suitable capacity which cover whole range of the rotational speed in actual vehicle (600 to 4500 rpm).	
2	Air cooled mini/micro channel condenser compatible to R1234yf refrigerant compressor with fan/blower having variable speed provision. Mini/micro channel condenser placed in suitable duct with provision to change its heating load by changing its inlet air temperature by suitable capacity electrical resistance heater/coolent. The heating load can be changed via variac (voltage regulator) and temperature can be set of air from 25 °C to 50 °C at inlet to condenser. There should be provision to change inlet air humidity also. The complete assembly of compressor and condenser should be in one insulated chamber of require size to maintain constant temperature and humidity. The screen should be placed at suitable location to streamline the flow of air in the duct.	
3	Micro/mini channel Evaporator coil compatible to above compressor with fan/blower having variable speed provision. Micro channel evaporator placed in suitable duct with provision to change its cooling load by changing its inlet air temperature by suitable	

	capacity electrical resistance heater. The cooling load can be changed via variac (voltage regulator) and required constant temperature can be set up. The complete assembly of evaporator and expansion device should be in one insulated chamber of required size to maintain constant temperature and humidity. Cabinet volume should be equal to inside volume of actual car of above capacity. The screen should be placed at suitable location to streamline the flow of air in the duct. There is provision to recirculate the same air or mix the some fresh air with recirculated air	
4	Suitable Thermo static expansion valve - block type of standard make	
5	Air conditioning test rig is to be made for new R1234yf refrigerant hence in the test rig compressor used must be compatible with R1234yf refrigerant and not of other refrigerants. The other components i.e condenser, evaporator and expansion valve must be of suitable size compatible to R1234yf compressor used. The necessary proof of purchase of R1234yf compressor and its suitable sized other components (condenser, evaporator and expansion valve) to make test rig must be supplied by supplier.	
6	Air velocity measurement of air flowing over condenser and evaporator by anemometer of standard make (Testo/Lutron) with accuracy of $\pm 2\%$ and as well as by pitot tube.	
7	Energy meters: - Separate energy meters of standard make (Schneider Electric or Larsen & Toubro) for measurement of power consumption by the i. compressor motor assembly ii. heating coil of condenser iii heating coil of evaporator with Class 1 accuracy (0.5% of full scale deviation)	
8	Measurement of power consumed by the compressor using Torque and speed measurement device of standard make.	
9	Flow meter :- suitable flow sensor of standard make to measure liquid refrigerant flow rate in lph or m^3/min with accuracy $\pm 1\%$.	
10	Pressure sensors: Pressure transducer 2 Nos of with accuracy:- $\pm 2\%$ standard make (Danfoss/Honeywell) with pressure measuring range (0-5 bar for suction pressure and 0 bar – 20 bar discharge pressure). Pressure sensor locations: 1. Suction of compressor 2. Delivery of compressor.	
11	Differential pressure sensors: Differential air pressures sensors across the evaporator and Differential air pressure sensors across the condenser to measure the pressure drop of air in both heat exchangers	
12	Temperature Sensors: - RTD PT100 Type (8 Nos) with Class A accuracy which can measure the temperature of refrigerants at various locations mentioned below: i. The suction of compressor. ii. The discharge of compressor iii. The inlet of condenser iv. The exit of condenser v. The inlet of expansion valve vi. The exit of expansion valve vii. The inlet to evaporator viii. The exit to evaporator Temperature Sensors: - RTD PT100 Type (8 Nos) with Class A accuracy which can measure the temperature of air at various locations mentioned below	

	<p>Condenser duct: i. Air inlet temperature to condenser ii. Air outlet temperature to condenser iii. Air inlet temperature to heater in duct iv. Air outlet temperature to heater in duct</p> <p>Evaporator duct: v. Air inlet temperature to evaporator vi. Air outlet temperature to evaporator iii. Air inlet temperature to heater in duct iv. Air outlet temperature to heater in duct</p>	
13	32 channels data acquisition system of standard make (Agilent or equivalent) along with PC (Core i5 (7th Gen)/4 GB DDR4/1 TB/Windows 10 Home) interfaced with system for recording all the pressure and temperature changes preferably every 10 seconds.	
14	Proper insulation of the suction line must be provided using elastomeric foam.	
15	Denfoss or equivalent standard make HP/LP cut off switch	
16	Receiver with two service valve, gas charging valve, filter/drier and solenoid valve must be provided.	
17	Pressure gauges: - 4 analog pressure gauges (Units- bar) with accuracy of +/- 0.1 bar for measuring pressure at 1. Suction of compressor 2. discharge of compressor. 3. Inlet to expansion valve 4. Exit to expansion valve	
18	Digital voltmeter and ammeter of standard make to measure the power of compressor and heaters.	
19	Temperature selection switch for displaying temperature at various points and LCD display showing temperature and pressure values at various locations.	
20	The unit with control panel should be mounted on fabricated rigid stand with caster wheel. All parts of the model should be brand new and fitted on wooden base. The apparatus should be supplied with a protective show case unit.	

SECTION IV: GENERAL TERMS & CONDITIONS

1. A complete set of bidding documents must be downloaded from the institute web-site <http://www.svnit.ac.in> Non-refundable tender fee as specified in the bid document by way of demand draft have to be remitted with the bid in favour of **Research & Consulting A/cs, payable at Surat** with tender document. Without the tender fees being remitted, the tender will not be considered.
2. Bids will be opened in the presence of Bidders' representatives who may choose to attend on the specified date and time.
3. In the event of the date specified for the bid receipt and opening, being declared as a holiday for SVNIT, the due date for submission of bids and opening of bids will be the following working day at the appointed times.
4. All bids must be accompanied by a **bid security (Earnest Money Deposit - EMD)** as specified in the bid document by way of demand draft, have to be remitted with the bid in favour of **Research & Consulting A/cs**, payable at Surat with tender documents.
5. EMD shall not bear any interest and no claim shall be entertained against the institute in respect of the same. EMD will be refunded on receipt of written request from the bidder by A/C Payee cheque only to the Bidder who does not qualify or receive the work order.
6. Tenders not accompanied by earnest money will not be considered and will be summarily rejected. As the institute is managed by an autonomous body and hence registration with the **State Government Store Purchase Department and Small Scale Industry shall not be the reason for exemption from EMD.**
7. The tender documents with earnest money deposited previously for any other tender will not be considered and in such case tender will be rejected.
8. The tenders received after due date will be rejected.
9. **In case of Two Bid Tender the envelope containing the commercial/Price bid shall be opened only after the appropriate satisfaction and verification of the Technical Bid, by the SVNIT tender committee.**
10. The bidder shall explicitly express the compliance to all the terms and conditions with the signature, along with official stamp on each page of the tender document.
11. The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.
12. In case of the authorized dealers quoting on behalf of manufacturers, a copy of certificate stating that the equipment being quoted by the bidder is on behalf of the concerned manufacturer and the manufacturer undertakes the responsibility to provide the after sales maintenance of the equipment must be enclosed without which bid will be rejected.
13. Consortium in any manner is not allowed in this Tender participation.
14. The bidder should clearly mention the after sales service facility/capability and provide the same during guarantee/warranty period.
15. The bidder shall arrange for repair/replace of the defective/worn out components of the equipment at this Institute premises during the guarantee period at purchaser's first instructions within stipulated Time. This will be carried out at the cost of prospective Supplier and no charges whatsoever will be paid including Transportation, Courier Charges or T.A. and D.A. of the Service Engineer for the same.

16. Supplier is not able to rectify the defect or make the alternate arrangement within stipulated time limit. Institute can get it rectified and the amount so spent will be deducted from security deposit plus 10 % of the expense made.
17. The rates shall be quoted separately for each item, stating the specific model & part-code no etc, including the standard items to be supplied with the unit. The detailed specifications, physical dimensions, guarantee period, after sale services, etc. should be clearly stated.
18. The rate for individual equipment should be quoted in Indian rupees for all indigenous goods. In case of imported equipment's/instrument the institute is exempted from the payment of Excise and Customs duty only against the DSIR certification No. **TU/V/RG-CDE (403)/2016** dated 21-02-2017 vide Government Notification No. 51/96. In case of foreign instruments, prospective Supplier should handle the custom clearance and transportation up to the destination i.e. SVNIT Surat, bearing all the cost for the same.
19. SVNIT being an Educational Technical Institute, the concession applicable in rates/Taxes under state/central govt. notification should be considered while quoting.
20. The institute CANNOT issue 'C' or 'D' forms. However, a certificate regarding the exclusive use of equipment/Instrument/services to be procured, for the purpose of teaching /research, can be issued if any concession in this regard be made available to the purchaser.
21. The bid shall be finalized on the basis of the **Net Amount in rupees** (including cost of the Installation, Packing, Forwarding, Transportation, ad valorem duty, Trainings, **all other Taxes, etc.**) F.O.R. on SVNIT, Surat.
22. The bidder must deposit a **Security Deposit** at a rate of **10%** of work order at the time of accepting the work order within 15 days of receipt of work order otherwise penalty of 2% of the work order will be charged for every week delay and delay of maximum 15 days will be allowed else order will be treated as cancelled without any notice and vendor will be **blacklisted. The contract will commence only after Security Deposit and penalty if applicable is deposited.**
23. The Security Deposit shall be in the form of Bank guarantee and will remain **valid for Three year of warranty period plus one month.** Failure on the part of the prospective Supplier to provide the services as per the terms and conditions in this document shall constitute a breach of the terms and conditions of the contract and will entail forfeiture of the security deposit solely to the discretion of the Director, SVNIT.
24. Security deposit shall be released only after the satisfactory completion of work, due if any and faithful performance of the work and after receipt of application from bidder for the same. No interest will be paid on security deposit, in case of any default on the part of the bidder, the security deposit will be forfeited and the decision of SVNIT authorities in this regard will be treated as final and abiding to the contractor.
25. Failure of the successful bidder to comply with the above requirement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security (EMD), in which event SVNIT may make the award to the next lowest evaluated bidder or call for new bids at the discretion of Director, SVNIT.
26. The prospective Supplier should clearly state the delivery period and time period required for installation and commissioning of the equipment/services, from the date of receipt of firm order. In case, if prospective Supplier anticipates delivery of any or all items being delayed due to the reasons beyond his control, the prospective Supplier shall apply for suitable extension, stating the reason for the same and state his firm date of delivery. The Director, if feels suitable may extend the delivery date.
27. In case of delay of delivery of the unit beyond the stipulated / stated period, **a penalty of 1% (One percent) of total value of the ordered equipment** will be levied for each week of delay of part thereof.

28. The bidder may offer the Tender on their letter heads giving full specifications and references to the serial number of the item and schedule. **Bid must be written in ink, or typewritten, and correction, if any, should be attested. Pencilled quotations will not be accepted.**
29. Individuals signing the offers or documents connected with the contract must specifically state whether (s)he (they) is(are):
- Signing as sole proprietor
 - Whether signing for the firm, and
 - In the case of companies or firms registered under the India partnership Act, the capacity in which (s) he (they) is (are) signing i.e. Secretary, manager, partner etc. or their attorney by production of document empowering him to do so.
30. Tender forms and schedules are not transferable.
31. Acceptance to abide by the conditions stipulated by the Director should be duly signed along with the offer. The absence of the acceptance of the conditions may result in the rejection of the offer.
32. The acceptance or rejection of the tender is left entirely to the discretion of the Director. The Director does not bind himself to accept the lowest or any tender and Director, reserves the right to split the tenders and place orders for the equipment covered by the lists on one or more tenders.
33. The Institution does not make payment in an advance against delivery/documents through Bank and hence, the prospective Supplier should specifically note that no advance payment will be made.
34. The Prospective Supplier warrants that the Goods supplied under this Contract are new, unused, of the **most recent or current models** and they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Prospective Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the SVNIT's Specifications) or from any act or omission of the Prospective Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
35. The Prospective supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to final destination as indicated in the Contract (In case of material damage, supplier have to bare all expenses/responsibility before material reaches to the final destination). The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
36. The tender should reach the SVNIT office on or before the last date and time specified earlier. Tenders received thereafter will not be considered, in any case.
37. The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified and in any subsequent instructions ordered by the SVNIT.
38. The Goods supplied under the Contract shall be fully insured by the bidder in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.
39. The Prospective Supplier's request(s) for payment shall be made to SVNIT in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents,

submitted. Also along with these documents, the **prospective Supplier shall have to obtain a satisfactory installation certificate from the Concern Department of SVNIT –only after which the bill may be processed.**

40. Payment shall be made in Indian Rupees only.
41. Deviation from any requirements, specification, terms and condition mentioned in the tender document will not be entertained and tender will be rejected.
- 42. The Director reserves the right to reject any or all the tenders without assigning any reasons thereof.**
- 43. The bid from the vendor who has received the work order for providing such service to SVNIT and was unable to provide the service, will be rejected.**
- 44. The bid from the bidder who was found in fraud activity with SVNIT or on the name of SVNIT will not be allowed for bidding. The bid from such bidder will not be accepted and will be straight away rejected. Also the bid submitted in consortium with such bidder will be rejected and if such information is found later then the work order issued will be terminated immediately without any notice.**
- 45. All prospective bidders should keep looking at the institute website for information concerning the changes/amendments on the website.** No claim of any nature on any ground on inadequate information or knowledge or misunderstanding or otherwise in such respects will be admissible, later on.
46. Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the prospective Supplier does not accept the correction of errors, its bid will be rejected and its bid security (EMD) may be forfeited.
- 47. No Bidder shall contact the SVNIT authorities on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded. If the bidder wishes to bring additional information to the notice of the SVNIT, should be done in writing.**
48. Any effort by a Bidder to influence the SVNIT and its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.
49. Bidders shall not be under a declaration of ineligibility for any corrupt and fraudulent practices prosecuted by the court of law.
50. The tender, as quoted once shall be considered final. No change, alterations and modifications shall be permitted at a later stage. Incomplete tenders will be rejected without assigning any reason.
51. It is compulsory to attach all the mentioned and required documents at time of submission of tender. No additional attachment is permitted later on.
52. All documents along with tender form must be numbered. (1...n) and corresponding page number must be entered in the pre-qualify sheet, no further clarification will be entertained.
53. The bid from the vendor or its sister concern or group of company who has been black listed at any Government organization / Semi-Government Organization / public sector etc. will be rejected.
54. The bid for OEM who has been black listed at any Government organization / Semi-Government Organization / public sector etc. will be rejected.
55. Defective equipment should be replaced by next business day.

56. The minimum validity period for the offer should be for 120 days.

57. Successful bidder should raise the bill of the items actually installed, quantity shown in the tender document are for mere guideline and show approximate quantity.

58. In case of any dispute, the matter will be subjected to SURAT jurisdiction only.

59. The specification as mentioned must be listed explicitly in tabular form along with information of compliance/non-compliance/better feature than the standard specification required. The quoted specification must match the required standard specification. Better and higher specification may be given preference if found suitable.

60. The supplier should provide pre-dispatch inspection of working of instruments/ equipment at their works (if required) at their cost before dispatch and should incorporate the required changes, if inspector suggests.

61. Maximum 02 Bid tenders are permitted i.e. Technical and Financial Bid.

62. In case of 2 Bid tender, Pre-Bid Meeting is MANDATORY (i.e. held on 17 July 2019 at 12.00 pm at MED Office MG-1).

DIRECTOR, SVNIT

SECTION V: DECLARATION

Tender reference no: No. MED/ADP/IMPRINT-2/191/19-20

Date:

I/We hereby declare I/We have read all the terms and conditions of the Tender stated in all the sections in this tender document and as may be modified/mutually agreed upon, are acceptable and binding to me/us.

I/We have also verified that the bidding document should contain the following

- A sealed envelope to contain the Demand Draft for EMD and the Demand Draft for tender fees.
- A sealed Envelope super scribedas “ Technical Sheet” which contain
 1. Technical specification and its compliances
 - 2.General terms and conditions
 - 3.Declaration
- A sealed Envelope super scribed as “Commercial Sheet” which contain
 - Summary Sheet in the format laid in this document

I also understand that my bid without these three envelopes, enclosed in the main envelope, super scribed as **“Tender for dedicated computerised car air conditioning test rig for min 1193 cc engine belt driven with electromagnetic clutch using new low GWP R1234yf refrigerant” with Specifications as per Technical Specification Sheet at MED, SVNIT, Surat** will be treated as an incomplete bid and is liable to be rejected.

Place:

Signature:

Date:

Name & Address of the Bidder with
Office Stamp with all contact details

SECTION VI : SUMMARY SHEET

(This must be typed on the Suppliers Letterhead and submitted with tender)

Tender reference no: **MED/ADP/IMPRINT-2/191/19-20**

Date :

Dedicated computerised car air conditioning test rig for min 1193 cc engine belt driven with electromagnetic clutch using new low GWP R1234yf refrigerant

1	Model	:	
2.	Basic Price of the Unit (Including accessories, spares etc.)	:	Rs. _____
3.	Packing and Forwarding	:	Rs. _____
4.	Freight/Transportation (FOR Destination at SVNIT, SURAT only)	:	Rs. _____
5.	Insurance charge	:	Rs. _____
6.	Installation and Commissioning charge if any	:	Rs. _____
7.	Taxes	:	Rs. _____
8.	Any extra charges	:	Rs. _____
9	Total Price		
10	Rebate / Concession for Academic Institute	:	Rs. _____
11	Net Price		
12.	Mode of Delivery(FOR Destination at SVNIT, SURAT only)	:	
11.	Delivery Period	:	Days / Weeks
12.	Validity of quotation (Minimum 120 days)	:	Days / Weeks
13	WARRANTY	:	THREE YEARS

Note:

- All taxes should be inclusive.
- This summary sheet must be enclosed in Commercial sheet envelop, otherwise the bid will be rejected.
- Warranty should be **Three years** from the date of successful installation
- Validity of Quotation should be (minimum) 120 days from the date of bid opening.

I understand that any ambiguity in or incompletely filled SUMMARY SHEET will lead to rejection of offer without being cited any reasons.

Place:

Signature

Date :

Name & Address of the Bidder with Office
Stamp with all contact details