



**SARDAR VALLABHBHAI NATIONAL INSTITUTE  
OF TECHNOLOGY, SURAT**

**TENDER NOTICE**

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

<b>No.</b>	<b>Item Name</b>	<b>Qty.</b>
1	Compressed Air Heater	1 set
2	Fuel Supply System	1 set

Tender documents will be available for download on institute website [www.svnit.ac.in](http://www.svnit.ac.in) from **22/02/2018** to **16/03/2018**. Tender fee of Rs 550/- must be remitted by DD only, drawn in favor of "**Research & Consulting A/cs**". The date of opening of tender is **19/03/2018** at 15:00 hours. The director reserves the right to reject any or all the tender items without assigning any reasons whatsoever thereof.

**No. MED/SAC/DRDO/17-18**

**DIRECTOR**

# **TENDER DOCUMENT**

## **SUPPLY OF ITEMS FOR SPONSORED PROJECT ON “COMBUSTOR TECHNOLOGY DEVELOPMENT”**



**MECHANICAL ENGINEERING DEPARTMENT  
S. V. NATIONAL INSTITUTE OF TECHNOLOGY,  
SURAT -395 007**

**SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY,  
SURAT**

---

**TENDER DOCUMENT**

I. Issued to M/s. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

II. Name of work, Reference No. & EMD to be deposited by D. D. only, Drawn in favour of **“Research & Consulting A/cs”** are as specified in the following table:

<b>Sr. No.</b>	<b>Item Name</b>	<b>Ref. No.</b>	<b>Qty.</b>	<b>E.M.D. (Rs.)</b>
1.	Compressed Air Heater comprising of Thermic Fluid Heater and Air Heater	No. MED/SAC/DRDO/4355/17-18	1 set	10,000/-
2.	Fuel Supply System	No. MED/SAC/DRDO/4354/17-18	1 set	7,500/-

III. The total number of pages in this tender document is nine (09) only.

**SCHEDULE OF TENDER**

1. Last Date of Issuing Tender Documents : 16/03/2018
2. Last Date of Receiving Tender Documents : 16/03/2018
3. Date of Opening of Tender : 19/03/2018

**DIRECTOR**

## GENERAL TERMS & CONDITIONS

1. **Tenders received without payment of tender fees will not be considered.**
2. Tender for each item (equipment/instrument) must be submitted separately with the name of equipment/instrument clearly mentioned on the top of the envelope along with the Tender Reference Number. Only first item quoted will be considered in case more than one equipment is quoted in one envelope.
3. The Earnest money for each of the quoted item will have to be paid by Crossed Demand draft drawn in favour of **Research & Consulting A/cs**, and enclosed along with the tender documents. **This amount will be refunded later, only on receipt of written request from supplier. EMD shall not bear any interest and without this EMD, the Tender shall not be considered. No correspondence in this regard shall be entertained.**
4. **The tenders as quoted once shall be considered final. No negotiations for the rate nor any change, alterations and modifications shall be permitted at a later stage.** After opening of the tender regarding specifications of the items in quotations, it will not be possible to accept any changes and no correspondence will be entertained in this connection.
5. The equipment/instrument should be furnished/supplied with a complete set of manuals, catalogues, technical literature, user's manuals and other relevant manuals for each of the items supplied.
6. In case the party has the standard equipment/instrument with marginally different specifications, the same may also be quoted with complete specifications of the equipment/instrument being offered. In case the party has the equipment/instrument with more variations in specifications, equipment may be quoted with complete details.
7. The supplier should have preferably supplied the same equipment/instrument to some of the customers in South/West region, the list of which will have to be furnished along with the quotations.
8. The rate for every individual equipment/instrument should be quoted in Indian Rupees for all indigenous goods. In case of imported equipment/instrument the rates should be offered in foreign currency **as the institute is exempted from, the payment of custom duty.**

9. The rates should be inclusive of all taxes with F.O.R. destination at S.V. National Institute of Technology, Surat. The rates may be quoted preferably in the following format:

- 9.1 Basic Price of the Unit :
- 9.2 Price of necessary accessories/spares etc. :  
(Prices should be quoted separately for the above items)
- 9.3 Taxes :
- NOTE :** (1) The College cannot issue 'C' or 'D' forms for tax concessions.  
(2) The college is also **exempted from the payment of Custom Duty and Central Excise Duty if applicable**. The college will provide necessary exemption certificate in this regard, **on demand**.
- 9.4 Packing and Forwarding :
- 9.5 Transport (F.O.R. Destination at :  
S. V. National Institute of Technology, Surat.).
- 9.6 Installation and Commissioning :
- 9.7 Insurance :
- 9.8 Any other charges (please specify) :
- 9.9 Rebate/Concession for academic Institution :
- 9.10 **Total** :

10. The bid shall be finalized on the basis of the **Total Amount in Rupees** (including cost of the Installation, Packing, Forwarding, Transportation, ad valorem duty, Trainings, all other Taxes, etc.) at **F.O.R. SVNIT, Surat only**.
11. In case of authorized dealers/sole agents/sole manufacturer in India, appropriate certificate should be submitted along with the tenders.
12. The delivery should be effected within eight weeks from the date of receipt of supply order or a mutually agreed date. The tender should clearly state the delivery period required.
13. In the event of supply being delayed, the party concerned shall apply for suitable extension, stating the grounds/reasons on which the extension is sought.

14. In case the delivery period is delayed beyond the stipulated period inclusive of any extension granted, **a penalty of 5% of the total value of the order will be levied for each week of delay or part thereof.**
15. The goods are required to be duly insured with any nationalized insurance company and the insurance charges will be borne by the institution against the relevant documents of the insurance company.
16. The validity of the tender to be submitted may be kept open at least for **120 days** from the last date of the receipt of the tender. However it is desirable to have a longer validity period.
17. The supplier shall be required to undertake the comprehensive guarantee/warranty for all the equipment supplied for a period of **minimum 3 years** from the date of satisfactory installation of the equipment/instrument.
18. The supplier should provide necessary training for the operation and servicing of the equipment/instrument at free of cost to the concerned personnel, if asked by the purchaser.
19. The supplier shall provide users list and the certificates of satisfactory operation of the equipment/instrument supplied by them to at least three well-known organizations preferably within Gujarat state during the last three years.
20. The supplier shall provide 3 sets of both technical/service manuals and operation/installation manuals along with the proper dust covers for the instrument/equipment at free of cost. Supplier should also provide certificate of calibration traceable to National / International Standards.
21. In case the quoted rates are as per the valid and prevailing contract, with DGS&D, New Delhi/GEM, the supplier shall furnish a certified Xerox copy of the same to the purchaser. It may also be mentioned whether supplier can accept a direct order based on DGS&D rate / GEM contract.
22. Payment is normally made by cheque drawn on the SBI, SVNIT Branch, Surat within a period of 30 days from the date of satisfactory installation of equipment/instrument. **This college is fully financed by Central Governments and the Government auditors have objected for making advance payment against delivery/documents through bank.**

23. Goods may be inspected at the factory before dispatch, if required at supplier's cost and risk. Goods received in the damaged condition will be rejected at the cost and risk of the supplier.
24. In the event of material/equipment/instrument supplied not being as per specifications, the same will have to be replaced at the cost and risk of the supplier. The rejected material will also be sent back at the cost and risk of the supplier including packing and forwarding charges. No payment will be released unless the material/equipment/instrument is as per the specifications specified in the tender.
25. The supplier shall arrange for repair/replacement of the defective/worn out components of the equipment/instrument at our place during the guarantee period at purchaser's first instructions within 15 days. This work will be carried out at the cost of supplier and no charges whatsoever will be paid including TA/DA of the service engineer for the same.
26. The supplier should clearly mention the after sales service facility/capability and provide the same during guarantee/warranty period.
27. Incomplete tenders will be rejected without assigning any reasons and no correspondence will be entertained in this connection.
28. Supplier and/or his representative may remain present on the date and time specified for opening of the tender.
29. In case the equipment is internationally certified for quality and bears the ISO 9000 or TQM certification, a copy of relevant certificate may be enclosed. Such equipment may be given preference.
30. In case of the authorized dealers quoting on behalf of Manufacturers, a copy of certificate is required to be enclosed from the manufacturer, that the equipment being quoted by the party is on behalf of the concerned manufacturer and the manufacturer undertake to provide the after sales maintenance of the equipment.
31. The Tender must be accompanied with a signed declaration from the party that the terms and conditions of the Tender are acceptable and binding to the party.
32. 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 order is placed.

If the bidder wishes to bring additional information to the notice of the SVNIT, should be done in writing.

33. The Director reserves the right to increase or decrease the quantity of the tender items or split the items of the tender. Rights are also reserved with the Director to reject any or all the tenders without assigning any reasons thereof.
34. In case of any dispute the matter shall be subject to Surat (Gujarat state) jurisdiction only.

**DIRECTOR**

---

**DECLARATION**

I/We hereby declare that the terms and conditions of the Tender stated herein, and as may be modified/mutually agreed upon are acceptable and binding to me/us.

Name and Address of Supplier/  
Manufacturer

Name and Signature of the  
Tenderer with Official Stamp

Telephone No. :

Date:

Fax Number :



## TECHNICAL SPECIFICATIONS

Sr. No.	Item Name	Ref. No.	Qty.																																										
1.	Compressed Air Heater comprising of Thermic Fluid Heater and Air Heater	No. MED/SAC/DRDO/4355/17-18	1 set																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">No.</th> <th style="text-align: left;">Equipment Name</th> <th style="text-align: left;">Parameter</th> <th style="text-align: left;">Requirement</th> </tr> </thead> <tbody> <tr> <td rowspan="5" style="vertical-align: top;">a.</td> <td rowspan="5" style="vertical-align: top;"><b>Thermic Fluid Heater</b></td> <td>Capacity</td> <td>@2.5 – 2.8 lac kcal/hr</td> </tr> <tr> <td>Fluid Inlet Temperature</td> <td>@260 – 265 °C</td> </tr> <tr> <td>Fluid Outlet Temperature</td> <td>@275 – 285 °C</td> </tr> <tr> <td>Oil Pump</td> <td>Air Cooled (Reputed Make)</td> </tr> <tr> <td>Oil Burner</td> <td>Diesel/Kerosene based compact, progressive type</td> </tr> <tr> <td rowspan="10" style="vertical-align: top;">b.</td> <td rowspan="10" style="vertical-align: top;"><b>Air Heater</b></td> <td>Control Panel</td> <td>Integral with fittings and safety devices</td> </tr> <tr> <td>Type</td> <td>Finned Tube</td> </tr> <tr> <td>Rating</td> <td>@2 – 2.2 lac/kcal/hr</td> </tr> <tr> <td>Air Inlet Temperature</td> <td>@40 – 50 °C</td> </tr> <tr> <td>Air Outlet Temperature</td> <td>@240 – 250 °C</td> </tr> <tr> <td>Air Flow Rate</td> <td>@0.4 – 1 kg/s</td> </tr> <tr> <td>Inlet Air Pressure</td> <td>5 kg/cm<sup>2</sup>(g)</td> </tr> <tr> <td>Pressure Drop</td> <td>Minimum and should be specified clearly by the supplier</td> </tr> <tr> <td>Controls</td> <td>With feedback control to achieve set exit air temperature within +/- 5 °C</td> </tr> <tr> <td>Safety</td> <td>Safe upto 10 kg/cm<sup>2</sup> and 300 °C with necessary pressure, temperature indicators and safety devices</td> </tr> <tr> <td>Piping and Valves</td> <td>From Air receiver tank to Setup (Insulated)</td> </tr> <tr> <td>Fuel Tank</td> <td>200 liters</td> </tr> </tbody> </table>				No.	Equipment Name	Parameter	Requirement	a.	<b>Thermic Fluid Heater</b>	Capacity	@2.5 – 2.8 lac kcal/hr	Fluid Inlet Temperature	@260 – 265 °C	Fluid Outlet Temperature	@275 – 285 °C	Oil Pump	Air Cooled (Reputed Make)	Oil Burner	Diesel/Kerosene based compact, progressive type	b.	<b>Air Heater</b>	Control Panel	Integral with fittings and safety devices	Type	Finned Tube	Rating	@2 – 2.2 lac/kcal/hr	Air Inlet Temperature	@40 – 50 °C	Air Outlet Temperature	@240 – 250 °C	Air Flow Rate	@0.4 – 1 kg/s	Inlet Air Pressure	5 kg/cm <sup>2</sup> (g)	Pressure Drop	Minimum and should be specified clearly by the supplier	Controls	With feedback control to achieve set exit air temperature within +/- 5 °C	Safety	Safe upto 10 kg/cm <sup>2</sup> and 300 °C with necessary pressure, temperature indicators and safety devices	Piping and Valves	From Air receiver tank to Setup (Insulated)	Fuel Tank	200 liters
No.	Equipment Name	Parameter	Requirement																																										
a.	<b>Thermic Fluid Heater</b>	Capacity	@2.5 – 2.8 lac kcal/hr																																										
		Fluid Inlet Temperature	@260 – 265 °C																																										
		Fluid Outlet Temperature	@275 – 285 °C																																										
		Oil Pump	Air Cooled (Reputed Make)																																										
		Oil Burner	Diesel/Kerosene based compact, progressive type																																										
b.	<b>Air Heater</b>	Control Panel	Integral with fittings and safety devices																																										
		Type	Finned Tube																																										
		Rating	@2 – 2.2 lac/kcal/hr																																										
		Air Inlet Temperature	@40 – 50 °C																																										
		Air Outlet Temperature	@240 – 250 °C																																										
		Air Flow Rate	@0.4 – 1 kg/s																																										
		Inlet Air Pressure	5 kg/cm <sup>2</sup> (g)																																										
		Pressure Drop	Minimum and should be specified clearly by the supplier																																										
		Controls	With feedback control to achieve set exit air temperature within +/- 5 °C																																										
		Safety	Safe upto 10 kg/cm <sup>2</sup> and 300 °C with necessary pressure, temperature indicators and safety devices																																										
Piping and Valves	From Air receiver tank to Setup (Insulated)																																												
Fuel Tank	200 liters																																												

## TECHNICAL SPECIFICATIONS

Sr. No.	Item Name	Ref. No.	Qty.																																																																														
2.	Fuel Supply System	No. MED/SAC/DRDO/4354/17-18	1 set																																																																														
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">No. Equipment Name</th> <th style="width: 45%;">Parameter</th> <th style="width: 35%;">Requirement</th> </tr> </thead> <tbody> <tr> <td colspan="3"><b>a. Main Tank Fuel Pump to Transfer Fuel to Buffer Fuel Tank</b></td> </tr> <tr> <td></td> <td>Discharge Pressure</td> <td>upto 5 kg/cm<sup>2</sup></td> </tr> <tr> <td></td> <td>Volumetric Flow Rate</td> <td>100 litre per hour (LPH)</td> </tr> <tr> <td></td> <td>Fuel type</td> <td>Kerosene</td> </tr> <tr> <td></td> <td>Pump type</td> <td>Any Suitable type</td> </tr> <tr> <td></td> <td>Flow Meter</td> <td>Any appropriate type with RS-485 port</td> </tr> <tr> <td></td> <td>Discharge Pipe Size &amp; Type</td> <td>1" NB of 30 m length (max.), anti-corrosive material to Kerosene (preferably SS)</td> </tr> <tr> <td colspan="3"><b>b. High Pressure Fuel Pump to Atomizer/Discharge for Spray</b></td> </tr> <tr> <td></td> <td>Pump type</td> <td>Gear/Lobe/Rotary/Positive Displacement</td> </tr> <tr> <td></td> <td>Drive System</td> <td>Suitable Motor with Necessary Control System</td> </tr> <tr> <td></td> <td>Mass Flow Rate</td> <td>0 to 0.009 kg/s</td> </tr> <tr> <td></td> <td>Discharge Pressure</td> <td>upto 21 kg/cm<sup>2</sup></td> </tr> <tr> <td></td> <td>Fuel type</td> <td>Kerosene</td> </tr> <tr> <td></td> <td>Discharge Pipe Size &amp; Type</td> <td>½" NB of 10 m length (max.), anti-corrosive material to Kerosene (preferably SS)</td> </tr> <tr> <td colspan="3"><b>c. Fuel Flow Control System</b></td> </tr> <tr> <td></td> <td>Input</td> <td>Flow through High Pressure Fuel Pump</td> </tr> <tr> <td></td> <td>Flow Control Accuracy</td> <td>0.5%</td> </tr> <tr> <td></td> <td>Data Logger Compatibility</td> <td>RS-485 COM PORT</td> </tr> <tr> <td></td> <td>Output</td> <td>To Atomizer/Nozzle</td> </tr> <tr> <td colspan="3"><b>d. Other Accessories</b></td> </tr> <tr> <td></td> <td>Buffer Fuel Tank with Filter</td> <td>100 litres capacity of suitable size</td> </tr> <tr> <td></td> <td>Main Fuel Tank with Filter</td> <td>250 litres capacity of suitable size</td> </tr> <tr> <td></td> <td>Fuel Tank Material</td> <td>Anti-corrosive to Kerosene (preferably SS304 or similar grade)</td> </tr> <tr> <td></td> <td>Atomizer</td> <td>Simplex - 9 GPH</td> </tr> <tr> <td></td> <td>Fuel</td> <td>Kerosene - 300 litres</td> </tr> </tbody> </table>				No. Equipment Name	Parameter	Requirement	<b>a. Main Tank Fuel Pump to Transfer Fuel to Buffer Fuel Tank</b>				Discharge Pressure	upto 5 kg/cm <sup>2</sup>		Volumetric Flow Rate	100 litre per hour (LPH)		Fuel type	Kerosene		Pump type	Any Suitable type		Flow Meter	Any appropriate type with RS-485 port		Discharge Pipe Size & Type	1" NB of 30 m length (max.), anti-corrosive material to Kerosene (preferably SS)	<b>b. High Pressure Fuel Pump to Atomizer/Discharge for Spray</b>				Pump type	Gear/Lobe/Rotary/Positive Displacement		Drive System	Suitable Motor with Necessary Control System		Mass Flow Rate	0 to 0.009 kg/s		Discharge Pressure	upto 21 kg/cm <sup>2</sup>		Fuel type	Kerosene		Discharge Pipe Size & Type	½" NB of 10 m length (max.), anti-corrosive material to Kerosene (preferably SS)	<b>c. Fuel Flow Control System</b>				Input	Flow through High Pressure Fuel Pump		Flow Control Accuracy	0.5%		Data Logger Compatibility	RS-485 COM PORT		Output	To Atomizer/Nozzle	<b>d. Other Accessories</b>				Buffer Fuel Tank with Filter	100 litres capacity of suitable size		Main Fuel Tank with Filter	250 litres capacity of suitable size		Fuel Tank Material	Anti-corrosive to Kerosene (preferably SS304 or similar grade)		Atomizer	Simplex - 9 GPH		Fuel	Kerosene - 300 litres
No. Equipment Name	Parameter	Requirement																																																																															
<b>a. Main Tank Fuel Pump to Transfer Fuel to Buffer Fuel Tank</b>																																																																																	
	Discharge Pressure	upto 5 kg/cm <sup>2</sup>																																																																															
	Volumetric Flow Rate	100 litre per hour (LPH)																																																																															
	Fuel type	Kerosene																																																																															
	Pump type	Any Suitable type																																																																															
	Flow Meter	Any appropriate type with RS-485 port																																																																															
	Discharge Pipe Size & Type	1" NB of 30 m length (max.), anti-corrosive material to Kerosene (preferably SS)																																																																															
<b>b. High Pressure Fuel Pump to Atomizer/Discharge for Spray</b>																																																																																	
	Pump type	Gear/Lobe/Rotary/Positive Displacement																																																																															
	Drive System	Suitable Motor with Necessary Control System																																																																															
	Mass Flow Rate	0 to 0.009 kg/s																																																																															
	Discharge Pressure	upto 21 kg/cm <sup>2</sup>																																																																															
	Fuel type	Kerosene																																																																															
	Discharge Pipe Size & Type	½" NB of 10 m length (max.), anti-corrosive material to Kerosene (preferably SS)																																																																															
<b>c. Fuel Flow Control System</b>																																																																																	
	Input	Flow through High Pressure Fuel Pump																																																																															
	Flow Control Accuracy	0.5%																																																																															
	Data Logger Compatibility	RS-485 COM PORT																																																																															
	Output	To Atomizer/Nozzle																																																																															
<b>d. Other Accessories</b>																																																																																	
	Buffer Fuel Tank with Filter	100 litres capacity of suitable size																																																																															
	Main Fuel Tank with Filter	250 litres capacity of suitable size																																																																															
	Fuel Tank Material	Anti-corrosive to Kerosene (preferably SS304 or similar grade)																																																																															
	Atomizer	Simplex - 9 GPH																																																																															
	Fuel	Kerosene - 300 litres																																																																															