



CENTRE OF PROPULSION TECHNOLOGY (CoPT)  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS  
CHENNAI – 600036, INDIA

Proj. No. ASE/1819/156/MUAY/SRCH

Date: 18.09.2019

Item name: **Supply of Fuel Mass Flow Controller-1 No.**  
Limited Tender Ref No: **ASE/MUAY/156/SRCH/027**

Due Date: **12.10.2019**

1. Quotations are invited in **two-bid system** for the item described overleaf (in Annexure I). The offers /bids should be submitted as Technical bid and Financial bid separately. The Technical bid should consist of all technical details / specifications only. The Financial bid should indicate item-wise price for each item and it should contain all Commercial Terms and Conditions including Taxes, transportation, packing & forwarding, installation, guarantee, payment terms, pricing terms etc. The Technical bid and Financial bid should be put in separate covers and sealed. Both the sealed covers should be put in a bigger cover. The words "Tender for supply of Fuel Mass Flow Controller" should be written on the left side of the Outer bigger cover and sealed.
2. **Earnest Money Deposit:** Earnest money deposit of Rs.20,000 payable by Demand Draft drawn on any Nationalised Bank of India favouring "Registrar, IIT Madras" is to be submitted along with the technical bid. Waiver of EMD for vendors with valid MSME/MSE certificate is permitted.
3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. The total cost of the equipment in terms of CIP Chennai should be clearly mentioned .
5. Cost breakup for all modules included in the scope of supply is mandatory
6. Terms of warranty and guarantee should be explicitly mentioned.
7. Warranty service must be provided on-site at IIT, Madras for duration of warranty period.
8. Packing and delivery charges, customs and clearance duty should be clearly stated.
9. Goods shall not be supplied without an official supply order.
10. Local firms : Quotations should be for free delivery to this institute. If quotations are for ex-godown, delivery charges should be indicated separately.
11. Firms outside Chennai: Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If ex-godown, packing, forwarding and freight charges must be indicated.
12. If the required good is to be imported, delivery with CIP upto Chennai airport must be made. All relevant documents for customs clearance and other import formalities have to be provided well in advance.
13. IIT Madras is eligible for concessional rate of GST 5%(for purchase of equipments, parts and consumables used in research). Concessional GST certificate will be issued after issue of purchase order.
14. The rate of sales / general taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for sales / general taxes will be admitted at any stage and on any ground whatsoever.
15. Payment :Payment is after delivery of goods. Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later. Advance payment will be considered only in special cases.
16. IIT Madras is eligible for concessional rate of customs duty. Necessary certificate will be issued on





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demand.

17. Optional: Quote to be provided for 1 year and 2 year extended warranty
18. IIT Madras has the right to accept the whole or any part of the tender or portion of the quantity offered or reject it in full without assigning any reason.

The sealed quotation may be sent to  
The Purchase Manager,  
CoPT OFFICE, NCCRD Building  
Behind Aerospace Engineering Dept., IIT Madras,  
Chennai – 600036, Ph. (O) +91-44-22579863

**ANNEXURE-1**

**Fuel mass flow controller**

**Requirement**

Fuel mass flow controllers (a combination of Corialis mass flow meter and positive displacement pump) are required which can operate in the condition given below.

**Specifications for Mass flow Controller – 1**

<b><u>S.No.</u></b>	<b><u>Description</u></b>	
1.	Fuel	Jet Fuel A1
2.	Material of construction	SS316L
3.	Pressure Range	0-40 bar @ the exit of MFC
4.	Temperature	Ambient to 45C
5.	Flow rate range	0-250Kg/h
6.	Accuracy	+/- 0.2% of the reading
7.	Power supply	220V , single phase





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**Specifications for Mass flow Controller - 2**

<b>S.No.</b>	<b>Description</b>	
1.	Fuel	Jet Fuel A1
2.	Material of construction	SS316L
3.	Pressure Range	0-40 bar @ the exit of MFC
4.	Temperature	Ambient to 45C
5.	Flow rate range	0-50 Kg/h
6.	Accuracy	+/- 0.2% of the reading
7.	Power supply	220V , single phase

**Other Requirements**

<b>S.No.</b>	<b>Description</b>
1.	The Mass flow controller shall have software interface and LabView interface (through USB port) to control and monitor the parameters
2.	Display is required in the mass flow meter – Optional quote
3.	Swagelok Fittings and valves is required and the line size should be 1/4".
4.	Suitable filter has to be supplied.
5.	Add all the necessary spares required
6.	Calibration certificate
7.	Warranty Certificate – 3 years
8.	All the connecting cables shall have a length of 15 meters
9.	Supplier shall install and commission the mass flow controller unit at IIT madras.
10.	The supplier shall check the working of the entire system in their facility and give us inspection report before delivering it to IIT madras.

Contact person for technical clarifications:

Dr.K.P.Shanmugadas

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