

NATIONAL INSTITUTE OF TECHNOLOGY

TIRUCHIRAPPALLI – 620015

DEPARTMENT OF MECHANICAL ENGINEERING

Web: www.nitt.edu

Phone: 0431 - 2503418, 2503442



TENDER DOCUMENT

Tender Notification No.: NITT/Mech/Materials Testing Lab/Micro Plasma Module / 2012

Dated: **01.11.2012**

Name of the Item	Micro Plasma Module
Quantity Required	01
Delivery	Within four weeks from the date of purchase order delivery
Last Date of submission of quotation	19.11.2012 up to 3.00 p.m.
Date of opening of quotation	19.11.2012 up to 3.30 p.m.



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NOTICE INVITING QUOTATION

The National Institute of Technology, Tiruchirappalli (NITT) is an autonomous body under MHRD, Government of India, University, imparting Technical Education and engaged in Research Activities. It is proposed to procure the following equipment for the departmental academic/research activities.

Sealed quotations are invited for the following equipment subject to the following terms and conditions from the reputed manufacturers or their authorized dealers so as to reach this office on or before the scheduled date and time. The Quotations will be opened on the same day in the presence of the Registrar.

Requirement: **Micro Plasma Module for the Existing MAGIC WAVE 4000 TIG Source**

Parameters & Functions	Description
Plasma power source	Add on attachment to be compatible with Magic Wave
Mains supply	The plasma source should be 230 V
Mains supply tolerance	The plasma power source should be able to operate between -20%/ +15%
Power factor	The power factor of the machine should be 0.99
Primary continuous power (100% D.C)	0.9 KVA
Duty cycle	30 A@100% duty cycle.
Plasma current Range	3-30A
Plasma Gas flow rate	0.2-10L/min
Open circuit Voltage	The OCV of the machine is 88 V
Standardised operating voltage	The operating voltage of the machine should be 10-16V
Machine Protection	The Machine should have IP23 degree of

	protection
Insulation Class	B
Technology	The technology of the plasma power source should be of inverter type.
Over Temperature indicator	The plasma power source should show indicator when machine exceeds its duty cycle conditions
Gas pre flow time	0-9.9 sec
Gas post flow time	0-9.9 sec
Gas purger	The plasma gas purger should be available
Plasma gas Quantity	The quantity of gas flow during gas post flow and gas pre flow time 0.2-10
Current Pilot arc	The current for the pilot arc should be between the range 3-30
Ignition Time out	0.1-9.9 sec The time until safety cut off following no ignition before start of welding
Arc break Watchdog	0.1-9.9 sec The time until safety cut off following an arc break during welding
Torch	The torch should be capable of performing plasma Welding in a mechanized way - connections of 4 meters length.
Pressure Regulator	For regulating the air pressure

Terms & Conditions

1. The item to be used is strictly according to the specification and subject to test by the Institute/concerned authorities. It must be delivered and installed in good working condition.
2. The bidder should give details of their technical soundness and provide list of customers of previous supply of similar items to Universities, Institutes or Government Departments / Undertakings / public sectors with contact details. The details of the agency/profile should be furnished along with the copy of all related documents.
3. **Payment:** No advance payment will be made. Payment will be made only after the supply of the item in good and satisfactory condition and receipt of performance security by supplier. In case of imports, the payment will be made through LC after installation and performance security need to be submitted at the time of LC commitment.
4. Rate shall be inclusive of all taxes. The Institute is eligible for customs duty and excise duty exemption.

5. The sealed cover should be addressed to

**The Director,
National Institute of Technology,
Tiruchirappalli – 620 015**

The cover should be subscribed with the following details

1. Kind Attention to Dr. T. Ramesh, and Dr. N. Siva Shanmugam, Assistant Professors / Mechanical Engineering.

2. Quotation Notification No.

3. Date of Opening

6. The clear specification, make, model range etc of product shall be mentioned in the quotation.

7. Guarantee and Warrantee period should be specified.

8. Period required for the supply and installation of item should be specified.

9. The Director reserves the right to reject any or all the offers without assigning any reasons thereto.

10. Time for completion of supply after placing purchase order: One month

11. Last Date of submission of quotation: 19.11.2012 before 3.00 p.m.

12. Place, Date and time of opening of Quotations

Date : **19.11.2012**
Time : **3:30 PM**
Venue : **Director Office**

13. Note: The Institute shall not be responsible for any postal delay about non-receipt / non delivery of the bids or due to wrong addressee.