

College of Engineering Trivandrum, Thiruvananthapuram

NOTICE INVITING TENDER

P5/4853/18/CET

13.12.2018

Tender No. : 38/18/P5/ME/AICTE
E -Tender ID : 2018_DTE_253898_1

Superscription :Purchase of Oxygen plasma exposure for the Mechanical Engg. Department of this institution

Last date and time of receipt of tender on the website : 08/01/2019 3 PM
(www.etenders.kerala.gov.in)

Date and time of opening of tender :10/01/2019 11 AM

Date upto which the rates are to be firm : 10/07/2019

Bidding fee : Rs.2832/-(Rs.2400/-+18%GST)

EMD required : Rs.16000/-

Address of the Officer to whom hard copy is to be send. : THE PRINCIPAL, COLLEGE OF ENGINEERING TRIVANDRUM, THIRUVANANTHAPURAM-695016, KERALA
GSTIN:32AAAGC0358L1ZP

Schedule of Items

SI No	Item	Specification	Qty
1	Oxygen plasma exposure	1. Mounting – Benchtop 2. Mass flow controller: Digital, One number for gas with , Resolution: 0.1% of full scale, Repeatability: +/-0.3% of reading, Leak rate: 0.1% or less of full scale 3. Service Connections : Electrical 230V/16A, Gas- 6mm Tube Inlet 4. Vacuum Chamber : Cylindrical shape, stainless steel, hinged door Minimum: 100mm internal diameter x 280mm Length 5. Powered Electrode : Aluminium and SS 6. Removable parts trays : removable, single shelf type 7. Control : 5.7" TFT with parameter store & fully automated process cycle 8. Plasma Generator : 40kHz, 0-100W Variable power or better	1

		<p>9. Vacuum Pump: Dry scroll pump (oil-free type), pressure $<5 \times 10^{-3}$ mbar. Suitable for use with air, oxygen and non-corrosive gases. Compatible with oxygen processes.</p> <p>10. Pressure gauge : Pirani sensor</p> <p>11. Second mass flow controller & mixing manifold.</p> <p>12. Maintenance Kit: Should include replacement pump oil, spare pump exhaust filter, spare vacuum clamp and seal, spare o-ring seals & spare replacement window glass.</p>	
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Purpose of equipment

Cleaning of samples using oxygen plasma and for PDMS bonding to fabricate microfluidic applications.

Essential conditions

- I. The manufacturer must demonstrate that the equipment is capable of fine control of gas-flow stabilisation using data-sheet of flow controller manufacturer and fine control of process timing.
- II. The manufacturer must supply representative results showing (i) Plasma surface activation of PDMS for bonding applications
- III. Supply minimum three global references (Including Indian Reference) of customers using this equipment for PDMS bonding for microfluidic applications.

General conditions

- 1.The price quoted should be inclusive of all taxes, freight charges, unloading charges, installation and commissioning charges and should be furnished unambiguously.
 - 2.Payment: 100 % after successful supply, installation, commissioning and demonstration.
 - 3.Delivery Period: Maximum Delivery period will be 60 days from the date of receipt of supply order.
 - 4.Agreement as per NIT 2 in Rs.200/- Kerala Stamp Paper and tender form should be uploaded.
 - 5.5% security deposit along with agreement should be furnished within a month/fortnight from the date of receipt of supply order.
 - 6.Date of opening of tender: In case the proposed date declared as holiday, the tender will be opened on the next working day.
 - 7.After E-Tendering the hard copy of all documents such as agreement, brochure, should be submitted before the opening date.
 - 8.Only GST registered firms can participate in the Tender
- NB: The Tender procedure will be made as per Rules mentioned in the Revised Store Purchase Manual.

The bidders should participate this tender through E-Tendering System. Tender cost and EMD should be submitted only through online. For more details Contact Ph.0471 2577088, 0471 2577188, 0471 257388, 0471 2515772

**Sd/-
PRINCIPAL**