



वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्  
Council of Scientific & Industrial Research  
राष्ट्रीय वांतरिक्ष प्रयोगशालाएं  
National Aerospace Laboratories

INVITATION FOR TENDERS

Tender No. NAL/PUR/SED/003/23

Dated: 24/04/2023

CSIR - National Aerospace Laboratories (NAL), Bengaluru, Republic of India, is one of the premier research laboratories under aegis of Council of Scientific and Industrial Research (CSIR), an autonomous body under the Department of Scientific and Industrial Research, Government of India, New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organisation. It is internationally known for its excellence in Scientific Research in Aerospace Engineering.

The Director, CSIR-NAL invites online quotation for procurement of the following item(s) for day to day research work.

Sl. No.	Description of Item(s)	Unit	Quantity
1	UHV Sputtering gun compatible with existing system	Nos	1
2	Magnetron sputtering DC power supply	Nos	1

(Please refer annexure for detailed specification)

Single / Double Bid	Single	Tender Type	Open
Bid Security (EMD) (in INR)	Bid Security Declaration should be enclosed with quotation	Bid submission end date	15-May-2023 10.00 Hrs
Performance Security	3% of the Purchase Order Value	Bid opening date	16-May-2023 11.00 Hrs

- Tender Documents may be downloaded from Central Public Procurement Portal <https://www.etenders.gov.in>. Aspiring Bidders who have not registered in e-procurement can register free of cost before participating through the website <https://www.etenders.gov.in>. Bidders are advised to go through instructions provided at 'Instructions for Online Bid Submission'.
- Tenderers can access tender documents on the website (for searching in the NIC site <https://www.etenders.gov.in>, kindly go to Tender Search option, select tender type and select 'Council of Scientific and Industrial Research', in organisation tab and select NAL-Bengaluru-CSIR in department type. Thereafter, Click on "Search" button to view all CSIR-NAL, Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://www.etenders.gov.in> as per the schedule given in the next page.
- a. Global Tender Enquiry: Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but **not** both. However, the offer of the Indian Agent should also accompany the authorisation letter from their principal. To maintain sanctity of tendering system, one Indian Agent **cannot** represent two different Foreign principals in one tender.



## CSIR-National Aerospace Laboratories, Bengaluru-560 017, INDIA

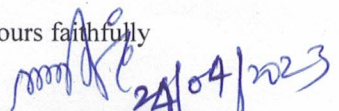
- b. Open Tender enquiry: Only Local suppliers with prescribed local content as detailed in DPIIT Order No. P-45021/2/2017-PP (BE-II) dated 16<sup>th</sup> Sep, 2020 and subsequent orders issued by Ministry of Finance (GoI) from time to time, are eligible for bidding. Bidders must enclose the certificate declaring the local content of supplies as per our standard form.

(Note: Kindly refer to the first page (NIT) for tender type (i.e. Open Tender Enquiry / Global Tender Enquiry) and submit your bid accordingly.

04. Unsolicited / conditional / unsigned Quotations/Quotations received after the due date and time shall be summarily rejected. The Bidder shall comply the terms and conditions of the tender, failing which, the offer shall be liable for rejection.
05. The bids' failing to comply with the following clauses will be summarily rejected.
- a. The Bidders' proposing to supply finished products directly/indirectly from vendors' of countries sharing the land border with India should submit a copy of registration done with DPIIT.
- b. If the products supplied are not from vendors of countries sharing land border with India, the Bidders' have to enclose a declaration to that effect.
06. As per Govt. of India procurement policies,
- a. The purchaser intends to give purchase preference to local supplies (Preference to Make in India) in case the cost of procurement is up to Rs. 50.00 lakhs.
- b. The procuring entity intends to give purchase preference to products/goods manufactured by micro, small and medium enterprises.
07. Bidders' are requested to refer to the instructions regarding Procurement Policies for "Make in India", issued by Ministry of Commerce and Industry, Department of Industrial Policy and Promotion dated. 28-May-2018, and 4-Jun-2020 and guidelines as and when issued.
08. Kindly, note CSIR-NAL **GST No. 29AAATC2716R1ZB**. And the bidders' are requested to furnish their GST No. in their invoice failing which we will **not** be able to make timely payment.
09. Printed conditions, if any, submitted along with your quotation shall not be binding on us.
10. The prospective bidders' are requested to refer to the Standard Terms and Conditions available on NAL Internet ([www.nal.res.in](http://www.nal.res.in)) under the icon Tender-Purchase before formulating and submitting their bids'.
11. The Director, CSIR- National Aerospace Laboratories, Bengaluru reserves the right to accept any or all the tenders either in part or in full or to split the order without assigning any reasons there for.

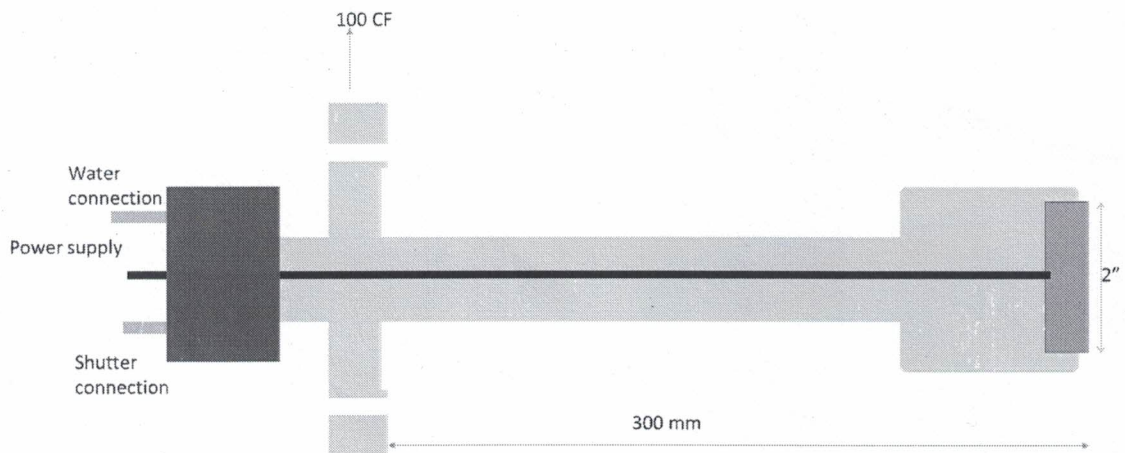
Thanking you,

Yours faithfully

  
24/04/2023  
**Stores & Purchase Officer**  
**For and on behalf of CSIR-NAL**

**Customized UHV sputtering Gun Specifications**

Compatible with UHV conditions	Yes
Distance between CF flange to Target top	300 mm ( see sketch diagram)
Mounting flange	100CF 16 bolt holes, Compatible with M8
Max. power (DC mode)	400 W DC
Max. power (RF mode)	400 W RF
Max. voltage DC	1200 V
Connector DC/RF	type 7/16
Compatibility	All type DC, pulsed DC and RF power supply
Target form	circular
diameter	2" (50.8 mm) ± 0.2 mm
thickness	1 – 6 mm ( magnetic Material)
cooling	indirect water cooling
Water flow	1-20 l/min
Max. inlet water temperature	25- 28 °C
Max. water pressure	2-3 bar
Tubing diameter	Ø6×1 mm
Magnet material	Neodymium Iron Boride (NdFeB) /SmCo
Magnet max. temperature	200 °C
Internal pneumatic shutter	yes – dome type shutter or FLAT
Chimney	yes
Internal gas inlet	yes (VCR standard)
Working gas	Ar, O <sub>2</sub> ,
Optimal working pressure	1.5×10 <sup>-3</sup> – 8×10 <sup>-2</sup> mbar
Warranty	1 Yr



*[Handwritten signature]*  
25/04/2023

**Magnetron DC power supply**

Supply voltage	100 – 240 V, 50-60 Hz
Output voltage	up to 1200 V (from 50 V)
Output current	up to 1200 mA (from 1 mA)
Output power	up to 600 W (from 1 W)
Switch-mode	3 outputs for magnetrons
Analog inputs/outputs	3 (0 – 10V)/ 3 (0 – 10V)
Digital inputs and outputs	individual programmable
Adjustable limits of voltage, current and power separately for each output	Yes
Arc detection	Yes
2D real time chart module	Optional
Timer	dual mode timer 0 s – 99 h 59 min.
Communication interface protocol	RS232/485, Ethernet
Communication protocol	MODBUS-TCP/RTU
User interface	TFT display with touch screen, digital encoder
Multiple I/O – individual programmable	Yes
Interface language	English
Interlock safety	Yes
Warranty	1 Yr

*(Handwritten signature)*  
24/04/2023