



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: 15/09/2023

CSIR - National Aerospace Laboratories (NAL), Bengaluru, Karnataka, 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.

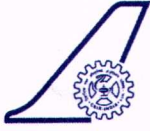
The Director, CSIR-NAL invites online quotation(s) for the procurement of the following item(s) for day to day research work.

Sl. No.	Description of Item(s)	Unit	Quantity
1	UHV Sputtering Gun compatible with existing system	Nos	01
2	Magnetron sputtering DC power supply	Nos	01

(Please refer annexure for detailed specification)

Single / Double Bid Only	Single	Tender Type	Global Tender
Bid Security (EMD) (in INR)	Bid Security Declaration should be enclosed with quotation	Bid submission end date	16-Oct-2023 10.00 Hrs
Performance Security	3% of the Purchase Order Value	Bid opening date	17-Oct-2023 11.00 Hrs

01. Tender document(s) may be downloaded from the Central Public Procurement Portal i.e., <https://www.etenders.gov.in>. Aspiring Bidders' who have not registered in the portal can do the same at free of cost before participating in our tendering process. Bidders are advised to go through instructions provided at 'Instructions for Online Bid Submission', in the portal.
02. Tenderer's can access tender document(s) 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 in the website as per the schedule given in the next page.
03. 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

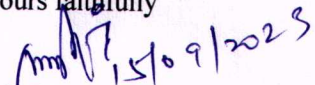
- b. Open Tender Enquiry: Only Local supplier's with prescribed local content as detailed in Department for Promotion of Industry and Internal Trade (DPIIT) Order No. P-45021/2/2017-PP (BE-II), dated 16th Sep, 2020, and subsequent orders issued by the Ministry of Finance, Government of India from time to time, are eligible for bidding. Bidders' must enclose the certificate declaring their local content of supplies as per our standard form.

Note: Kindly, refer to the first page of Notice Inviting Tender 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 should comply with the terms and conditions of the tender, failing which, their offer will 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 Government 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 (fifty) 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 will 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) 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 reason(s) thereof.

Thanking you,

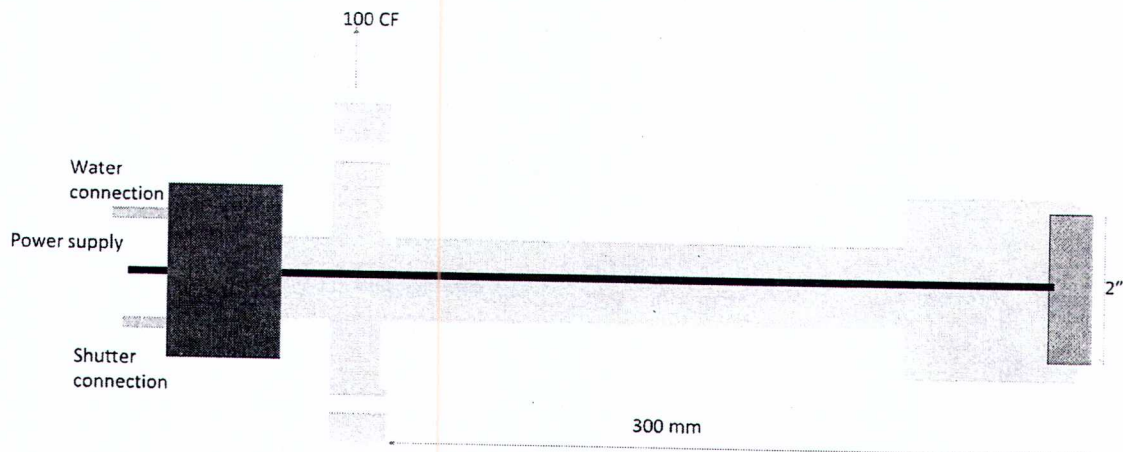
Yours faithfully


15/09/2023

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 ₂ ,
Optimal working pressure	1.5×10 ⁻³ – 8×10 ⁻² mbar
Warranty	1 Yr



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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

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15/09/2023