भारत सरकार GOVERNMENT OF INDIA :: अंतरिक्ष विभाग DEPARTMENT OF SPACE
सतीश धवन अंतरिक्ष केंद्र शार SATISH DHAWAN SPACE CENTER SHAR
श्रीहरिकोटा SRIHARIKOTA :: तिरुपति जिला (आ.प्र.) TIRUPATI DISTRICT (A.P)– 524 124

निविदा सूचना सं. **TENDER NOTICE NO. SDSC SHAR/Sr.HPS/PT/RO-LSSF/2026/05**

भारत के राष्ट्रपति की ओर से वरि. प्रधान क्रय एवं भंडार, सतीश धवन अंतरिक्ष केंद्र श्रीहरिकोटा निम्नलिखित वस्तुओं के लिए ऑनलाइन निविदाएं आमंत्रित करते हैं:- On behalf of President of India, Sr. Head Purchase and Stores, SDSC SHAR, SRIHARIKOTA invites on line quotations for the following.

क्र.सं. Sl No	संदर्भ सं. Ref. No.	विवरण Description	मात्रा Qty.
01.	**SDSC SHAR /LSSF PURCHASE/LSSF/2026000026 [Public Tender - Two Part]**	**Supply of Water Cooling Tower & Water circulation Pump for Gaseous Hydrogen Compressor**	**1 Set**

निविदा दस्तावेजों को डाउनलोड करने की अंतिम तिथि Last Date for downloading of tender documents : 06.03.2026 at 14:00 hrs.
ऑनलाइन निविदा जमा करने की अंतिम तिथि Due Date for submission of bids online : 06.03.2026 at 14:00 hrs.
निविदाएं खोलने की नियत तिथि Due Date for opening of tenders : 06.03.2026 at 14:05 hrs.

निविदाकार के लिए निर्देश Instructions to Tenderers:

निविदाएं ईजीपीएस के माध्यम से ही भेजी जाएं तथा कोई निविदा शुल्क लागू नहीं होगा।
Bids shall be submitted on line through EGPS only and No tender fee shall be applicable.

01. कार्य के सम्पूर्ण विवरण/जानकारी तथा नियम व शर्तों इत्यादि के लिए संलग्न अनुलग्नक को देखें। / For full details/scope of work and terms and conditions etc., please see the enclosed annexures.

02. इच्छुक निविदाकार इसरो की ई-खरीद वेबसाइट इसरो न्यू ई-प्रोकुरमेंट www.eproc.isro.gov.in से ई-निविदा डाउनलोड और अपनी निविदा ई-खरीद पोर्टल पर ऑनलाइन जमा कर सकते हैं। डाक / वाहक / स्वयं द्वारा प्राप्त निविदाओं पर विचार नहीं किया जाएगा। / Interested tenderers can download the e-tender from ISRO NEW E-PROCUREMENT www.eproc.isro.gov.in and submit the offer on line in the e-procurement portal. Offers sent physically by post/courier/in person will not be considered.

03. निविदा दस्तावेज इसरो की वेबसाइट www.isro.gov.in इसरो न्यू ई-प्रोकुरमेंट वेबसाइट www.eproc.isro.gov.in तथा सतीश धवन अंतरिक्ष केंद्र शार की वेबसाइट www.shar.gov.in पर भी उपलब्ध हैं। इन्हें केवल ई-खरीद पोर्टल से डाउनलोड और निविदा ऑनलाइन जमा कर सकते हैं। / Tender documents are also available on ISRO website www.isro.gov.in, ISRO New e-procurement website www.eproc.isro.gov.in and SDSC SHAR, Sriharikota website www.shar.gov.in. The same can be down loaded and offer submitted on line in the new e-procurement portal only.

04. निर्धारित तिथि/समय के पश्चात प्राप्त बोलियों पर विचार नहीं किया जाएगा। / Quotations received after the due date/time will not be considered.

04. वरि. प्रधान क्रय एवं भंडार, सतीश धवन अंतरिक्ष केंद्र श्रीहरिकोटा के पास किसी भी या सभी निविदाओं को स्वीकार / अस्वीकार करने का अधिकार है। / Sr. Head, Purchase and Stores, SDSC-SHAR, Sriharikota reserves the right to accept or reject any/or all the quotations.

05. GeM ARPTS Report ID: GEM/GARPTS/21012026/AWCW7DB2OKIO

दिनांक DT: 11.02.2026

वरि. प्रधान क्रय एवं भंडार
Sr. HEAD PURCHASE AND STORES

Annexure-I

Specifications for supply of water cooling Tower & Water circulation Pump for Gaseous Hydrogen Compressor

1. SCOPE

The scope involves design, engineering, assembly, Transport, supply, unload, unpack, participation in site erection & commissioning of water cooling tower with flame-proof motor for gaseous hydrogen compressor at SHAR-Sriharikota, confirming to technical specifications, terms & conditions as specified.

(a) Supply of Cooling Tower including fan with electric motor and control panel (Technical specifications as per Table-1) with ON/OFF buttons suitable for Group-IIC environment.

(b) Supply of Cooling water circulation Pump along with flame proof electric motor and control panel (Technical specifications as per Table-2) with ON/OFF buttons suitable for Group-IIC environment.

2. Technical Specifications:

a) Cooling Tower & Control Panel:

The cooling tower including the accessories shall be designed and constructed in accordance with the latest applicable provisions of Indian/International standards or CTI standards in general and in particular PTC-23 ASME performance test code for "Atmospheric water cooling equipment".

TABLE-1

S.No	Description		Feature
1.	Type of cooling water tower	:	Mechanical Induced draft - **Counter flow-packaged type** Round bottle type construction FRP cooling tower with Rotating Aluminium Alloy Sprinkler spray system arrangement. PVC in filler packed and fan directly connected to the **flame proof motor** with water holding basin.
2.	Capacity of cooling water tower	:	10 m^3/hr
3.	Hot water temperature	:	44 Deg. C (Max)
4.	Cold water temperature (nominal)	:	33 Deg. C
5.	Design wet bulb temperature	:	30 Deg. C
6.	Pump head (max) at cooling tower inlet	:	2 bar (g)
7.	Cooling Range	:	9 Deg. C
8.	Approach	:	3 Deg. C
9.	Application	:	Process water cooling

S.No	Description		Feature
10.	Quality of water	:	Soft
11.	Overall Dimensions (Aprrox.)	:	Diameter-1200mm, Height-1800mm
12.	Water spray Header & Distribution pipes	:	63mm PVC pipe & 40mm PVC spray arm
13.	Sump capacity	:	225litrs.
14.	Nozzles		Orifice Nozzle
15.	Site Conditions ✓ Design temperature ✓ Humidity of air at design ambient ✓ Altitude above MSL ✓ Atmosphere	:	 ✓ 45 Deg. C ✓ 95% ✓ 6 m ✓ Saline, Highly corrosive, humid, hot and tropical atmosphere
16.	Inlet/Outlet connections	:	50 NB Flanged /50 NB Flanged
17.	Cooling tower Electric motor	:	✓ Top sealed and Vertical Flange Mounted, Extended & Threaded Shaft with degree of protection IP-55 ✓ 1.0HP / 920rpm (Motor rating shall be chosen such that at full load, motor current should not exceed 80% of the rated current) ✓ Class of insulation: F/Duty-S1 rated motor ✓ Fan Diameter 750mm & 4 blades (Aluminium Alloy with Hub) ✓ Type of Balancing: Dynamic /Momentum static ***Special Feature:*** ✓ ***Flame proof type (Group-IIC, Gas area, environment compatible)*** ✓ ***Make: Crompton/ABB/Kirloskar or equivalent***
	Power supply to motor		✓ Voltage : 415 ± 10% Volts ✓ Frequency: 50 ± 3 % Hz ✓ Phase : 3 Phase ✓ Flame Proof: Group IIC
	Control panel		Design, manufacturing, Transport & Supply of 3 phase-4wire with earth provision for electrical cooling tower fan motor consisting of 1 incoming + 2 outgoing MCCB control switch, D.O.L starters along with indicators suitable for Group IIC Gas area application and wall mounted type.

S.No	Description		Feature
			DOL starter suitable for Group IIC shall consists the following features: a) incoming MCCB rating shall be 2.5 times of the rated current. b) Three Pole AC3 duty power contactor, power contactor rating shall be two times of the rated current. c) Required Auxiliary contactors (03Nos.). d) Control supply shall be 230V AC. e) Suitable Over Load Relay shall be supplied. f) Indication lamps for R, Y, B. g) Indication lamps for pump ON, OFF and Trip. h) Push buttons for On/Off. i) Emergency stop button. j) Any other components as per standard. Drawings are to be submitted to purchaser for approval prior to procurement/fabrication.
18.	**Material of Construction**		
	Structurals	:	S.S.304
	Tower Body	:	Fiberglass Reinforced Polyester (FRP)
	Tower Casing	:	Fiberglass Reinforced Polyester (FRP)
	Water Sump	:	Fiberglass Reinforced Polyester (FRP)
	PVC in Filler	:	PVC Corrugated Honeycomb type virgin quality Vacuum formed PVC Sheet (for effective heat transfer size)
	Water Distributor	:	Water uniformly distributed through properly by main sprinkler header and side spray arm for final distant droplets.
	Fan stack	:	Fiberglass Reinforced Polyester
	Sprayer	:	Aluminum Alloy Sprinkler
	Drift eliminators	:	Round Type PVC & FRP material

S.No	Description		Feature
	Fan blades	:	Fiberglass Reinforced Polyester / Aluminum Alloy
	Fan assembly	:	Cast Aluminium Alloy fan assembly with cast Aluminium Hub
	Fan guard & Air suction screen	:	PVC Mesh
	Fan Shaft	:	EN-8
	Fan Guard	:	Hot Dip Galvanised Steel (HDGS)
	Branch Pipes	:	HDPE threaded branch pipe with perforations
	Bolts/Nuts/Washers	:	Stainless Steel (SS 304)
	Basin	:	Fiberglass Reinforced Polyester (FRP)
19.	**Quantity Required (set)**	:	**01 set**

b) Water circulation pump with flame-proof motor & Control panel:

TABLE-2

S.No	Description		Feature
1.	**Pump**		***Centrifugal mono block pump*** ***Special Feature:*** ***Group-IIC environment compatible***
	Fluid to be handled	:	Water
	Nominal flow capacity	:	15 m^3/hr
	Discharge head	:	30 MLC (Metres of Liquid Column)
	Material of Construction		
	✓ Pump internal parts ✓ Suction & Delivery casings ✓ Impeller ✓ Gland packing	:	✓ Stainless Steel grade (SS 304) ✓ Cast Iron ✓ Cast Iron ✓ Suction 65mm X Discharge 40mm
2.	**Suction strainer**		Stainless Steel grade (SS 304)
3.	**Electric Motor (for pump)**	:	***Special Feature:*** ✓ ***Flame proof type (Group-IIC gas area & environment compatible)*** ✓ Weather proof enclosure with degree of protection IP-55 ✓ 5.5KW/7.5HP, 2pole Frame LE132M-IIC-B3 on std. base plate (Motor rating shall be chosen such that at full load, motor current should not exceed 80% of the rated current)

S.No	Description		Feature
			✓ Coupling material: Cast Iron ✓ ***Crompton/ABB/Kirloskar or equivalent make foot mounted FLP Motor IE2 efficiency***
	Power supply to motor		✓ Voltage : 415 ± 10% Volts ✓ Frequency : 50 ± 3 % Hz ✓ Phase : 3 Phase ✓ Flame Proof: Group IIC
	Control panel		Design, manufacturing, Transport & Supply of 3 phase-4wire with earth provision **for electrical motor for cooling water circulation pump starter control panel** consisting of 1 incoming + 2 outgoing MCCB control switch, D.O.L starters along with indicators suitable for Group IIC Gas area application and wall mounted type. DOL starter suitable for Group IIC shall consists the following features: a) incoming MCCB rating shall be 2.5 times of the rated current. b) Three Pole AC3 duty power contactor, power contactor rating shall be two times of the rated current. c) Required Auxiliary contactors (03Nos.). d) Control supply shall be 230V AC. e) Suitable Over Load Relay shall be supplied. f) Indication lamps for R, Y, B. g) Indication lamps for pump ON, OFF and Trip. h) Push buttons for On/Off. i) Emergency stop button. j) Any other components as per standard. Drawings are to be submitted to purchaser for approval prior to procurement/fabrication.
4.	**Base frame**		**For pump & motor set (including holding down bolts, nuts & washers)**
5.	**Quantity Required (Set)**	**:**	**01 set**

3. Inspection & Site performance test:

After completion of all activities (specified under S. No:1 (scope)) at our site, supplier need to demonstrate the performance of the water cooling tower including fan with electric motor, Water circulation pump with motor and control panels during commissioning trials with gaseous hydrogen compressor. The test results will be verified after 8hrs. continuous operation of the compressor and the results shall be in compliance with the design details furnished. The detailed QAP need to be submitted for purchaser's approval within 10days after receipt of P.O.

4. GENERAL CONDITIONS:

1. Supplier shall furnish **point-wise confirmation** for the technical specifications given in the enquiry. Suppliers are expected to furnish quotations with best match to design standards, materials of construction and other technical conditions specified in Annexure–I.
2. The Supplier shall submit general arrangement drawings/data sheets indicating bill of materials, weights & cross sectional views of all equipment showing overall dimensions of cooling tower, Water circulation pump with electric motors (including control panel with D.O.L starters) along with the offer.
3. Along with the offer, supplier shall submit the civil input data (dimensional & load details) for realizing the foundation for cooling tower and water pump.
4. Representative from the supplier need to present during erection & commissioning of cooling tower, water circulation pump (including fan with electric motors) and Electrical wiring of cooling tower fan motor, Water circulation pump motor & control panel (for both cooling tower fan motor and cooling water circulation pump) with ON/OFF buttons suitable for Group-IIC environment. Supervision during Erection and commissioning is the responsibility of the supplier.
5. Supplier shall provide after sales service during maintenance activities of the water cooling Tower, pump and motor during warranty period.
6. During erection, mobilization of equipment from stores to LHFS/SLP and supporting the equipment by using fork lift or any other material handling equipment is in the scope of department.
7. The manpower and electrical wiring is in the purchaser's scope.
8. The cooling tower shall be fitted with name plate indicating the type, capacity (in terms of TR), material etc.

9. The water circulation pump shall be fitted with name plate indicating the flow rate, discharge head, area classification etc., The electric motor shall be fitted with name plate indicating electrical/area classification, enclosure classification, power supply details etc.,

10. Considering the interconnectivity between supply of Cooling Tower (including fan with electric motor and control panel) and Cooling water circulation Pump (along with flame proof electric motor and control panel), split/part purchase order will not be applicable. Supplier need to provide confirmation towards the full quantity supply.

11. The supplied total system shall be warranted for satisfactory performance for a period of 12 months from the date of usage or 18 months from the date of supply, which ever is earlier.

12. The items/equipment shall be properly packed so as to avoid damage during transit.

13. Payment will be done on prorate basis i.e. 70% amount will be paid after receipt and acceptance of the material at purchaser's site and remaining 30% will be paid after conducting satisfactory commissioning trials with Gaseous Helium and Gaseous Hydrogen at purchaser's site.

14. **General conditions for submission of offer:**

Offers shall be submitted through ISRO EGPS portal as per the details given below:

a) Part-I – Techno-commercial Bid:

Details to be furnished in Techno-commercial Bid are as follows:

- ✓ The tenderer shall furnish confirmation for the technical specifications mentioned under **Sl.No.2 Technical specifications (including Table-1 & 2)**. However, change of specifications/ deviations (if any) shall be brought out in the offer as deviation summary with detailed justification.
- ✓ In addition to the above exclusions, if any from scope of supply shall be clearly brought out in the format provided as Annexure-A. Also acceptance of terms and conditions shall be submitted in the format provided as Annexure-B.
- ✓ Confirmation of un-priced price bid format as given in Table-C
- ✓ Annexure-1 & Annexure- A to C shall be submitted as part of techno commercial bid.
- ✓ Commercial conditions i.e. payment terms are indicated above.
- ✓ Tenderer shall note that indication of price in the techno-commercial bid will lead to dis-qualification of bid.

b) Part-II – Price Bid:

- ✓ Price bid shall be uploaded on ISRO EGPS portal as per the format given in Annexure—D, elsewhere mentioned will be summarily rejected.

c) In view of tender on Two Part bid basis, the Offers submitted contrary to above instructions will be summarily rejected.

5. Documents to be submitted:

Supplier shall submit the following documents (Hard and soft copies) along with dispatch of cooling tower & Water circulation pump to SHAR.

a) Load data for foundation indicating base plate details, static & dynamic loading on foundation.

b) Specification/Data sheets for all the equipment and components (including control panels).

c) Calculations for power requirement & selection of motors etc.

d) Data sheets indicating electrical motor details.

e) Internal wiring, terminal block arrangement and external connection diagrams.

f) As built drawing of cooling tower assembly with overall dimensions.

g) Two sets of Operation and Maintenance manual.

h) Material Test reports & performance reports /charts.

Annexure -A

TO BE SUBMITTED ALONGWITH TECHNICAL BID

NAME OF THE WORK : _____

NAME OF BIDDER : _____

EXCEPTIONS AND DEVIATIONS

In line with Proposal Document, Bidder may stipulate Exceptions and deviations to the Proposal conditions if considered unavoidable.

S.No	Reference in Specification		Dept. Specification	Offered Specification	Deviation
	Page No.	Clause No.			

NOTE :

- ✓ Any deviations taken by the Bidder to the stipulations of the Proposal document shall be brought out strictly as per this format and enclosed along with the bid.
- ✓ Any deviations not brought out as per this Proforma and written elsewhere in the Proposal document shall not be recognized and the same is treated as null and void.
- ✓ Any willful attempt by the Bidders to camouflage the deviations by giving them in the covering letter or in any other documents that are enclosed may render the Bid itself non-responsive.

(SIGNATURE OF BIDDER)

Annexure –B

TO BE SUBMITTED ALONGWITH TECHNICAL BID

ACCEPTANCE OF TERMS AND CONDITIONS BY THE VENDOR

We hereby agree to all the terms and conditions as given in Tender Notice No. _____ dated: _____ for Supply of

a) Cooling Tower including fan with electric motor and control panel (Technical specifications as per Table-1) with ON/OFF buttons suitable for Group-IIC environment.

b) Supply of Cooling water circulation Pump along with flame proof electric motor and control panel (Technical specifications as per Table-2) with ON/OFF buttons suitable for Group-IIC environment. (as per the specifications and requirements indicated in the Annexure-1) at SDSC SHAR, Sriharikota.

Company Seal **(Authorised Signatory of Company)**

Place : _____

Date : _____

Annexure –C

Confirmation of un-priced bid format to be submitted by the Party

S.No	Description of the item	Qty.(set) (n)	Unit cost (including P&F, transportation, & GST charges), INR (A)	Total cost (in INR) n x A	Separate Cost mentioned in price bid (Yes/No)
1.	Cooling Tower including fan with electric motor and control panel (Technical specifications as per Table-1) with ON/OFF buttons suitable for Group-IIC environment.	1	Un-priced	Un-priced	YES/NO
2.	Supply of Cooling water circulation Pump along with flame proof electric motor and control panel (Technical specifications as per Table-2) with ON/OFF buttons suitable for Group-IIC environment	1	Un-priced	Un-priced	YES/NO

Annexure –D

Price bid format

S.No	Description of the item	Qty.(set) (n)	Unit cost (including P&F, transportation, & GST charges), INR (A)	Total cost (in INR) n x A
1.	Cooling Tower including fan with electric motor and control panel (Technical specifications as per Table-1) with ON/OFF buttons suitable for Group-IIC environment.	1		
2.	Supply of Cooling water circulation Pump along with flame proof electric motor and control panel (Technical specifications as per Table-2) with ON/OFF buttons suitable for Group-IIC environment	1		