

भारत सरकार
अंतरिक्ष विभाग
सतीश धवन अंतरिक्ष केंद्र शार
श्रीहरिकोटा रेंज डा.घ. 524 124
श्री पोट्टि श्रीरामुलु नेल्लूर जिला, आं.प्र., भारत
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Government of India
Department of Space
Satish Dhawan Space Centre SHAR
Shriharikota Range P.O. 524 124
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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/45/2022-2023

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/ 2023000212 [Public Tender - Two Part]	Supply of SS Nitrogen Receivers and Compressed Air Receivers.	14 Nos

निविदा दस्तावेजों को डाउनलोड करने की अंतिम तिथि Last Date for downloading of tender documents : 23.03.2023 at 16:00 hrs.
ऑनलाइन निविदा जमा करने की अंतिम तिथि Due Date for submission of bids online : 23.03.2023 at 16:00 hrs.
निविदाएं खोलने की नियत तिथि Due Date for opening of tenders : 24.03.2023 at 14:30 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.

- 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.
- इच्छुक निविदाकार इसरो की ई-खरीद वेबसाइट इसरो न्यू ई-प्रोकुरमेंट www.eproc.vssc.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 e-procurement website ISRO NEW E-PROCUREMENT www.eproc.vssc.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.
- निविदा दस्तावेज इसरो की वेबसाइट www.isro.gov.in इसरो न्यू ई-प्रोकुरमेंट वेबसाइट www.eproc.vssc.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.vssc.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.
- निर्धारित तिथि/समय के पश्चात प्राप्त बोलियों पर विचार नहीं किया जाएगा। / Quotations received after the due date/time will not be considered.
- निविदा दस्तावेज दिनांक 21.03.2023 को 16 00 बजे तक डाउनलोड करने के लिए उपलब्ध रहेंगे तथा निविदा ऑनलाइन जमा करने की अंतिम तिथि 23.03.2023 को 1600 बजे तक है। निविदाएं दिनांक 22.03.2023 को 14:30 बजे खोली जाएंगी। / The tender documents are available for download up to 23.03.2023 at 16 00 hrs. and last date for submission of tenders on line 23.03.2023 at 16 00 hrs. and Tender Opening on 24.03.2023 at 14:30 hrs.
- इच्छुक विक्रेता विवरण जानने के लिए निविदा खोले जाने वाले सत्र में शामिल हो सकते हैं। निविदा के मूल्यांकन पर विचार करने के लिए उनकी उपस्थिति अनिवार्य नहीं है। / Interested vendors can attend the Bid opening sessions to know the details. Presence not mandatory to consider the quote for evaluation.
- 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.
- GeM GARPTS Report ID: GEM/GARPTS /23022023/JMITGCTFUXWD

दिनांक DT: 23.02.2023

भारतीय अंतरिक्ष अनुसंधान संगठन



वरि. प्रधान क्रय एवं भंडार
Sr. HEAD PURCHASE AND STORES
Indian Space Research Organisation

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA (SDSC SHAR)
NELLORE**

Tender for Supply of SS GN2 Receiver & Air Receivers

Bids to be submitted online

Tender No.: SDSC SHAR/LSSF PURCHASE/SH202300021201 dated 28-02-2023

A. Tender Details

Tender No : **SDSC SHAR/LSSF PURCHASE/SH202300021201**

Tender Date : **28-02-2023**

Tender Classification: **GOODS**

Purchase Entity : **LSSF PURCHASE**

Centre : **SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA
(SDSC SHAR)**

Supply of SS GN2 Receiver & Air Receivers

Supply of SS GN2 Receiver & Air Receivers

A.1 Tender Schedule

Bid Submission Start Date : **28-02-2023 10:30**

Bid Clarification Due Date : **10-03-2023 14:00**

Bid Submission Due Date : **23-03-2023 16:00**

Bid Opening Date : **24-03-2023 14:30**

Price Bid Opening Date : **24-04-2023 14:30**

B. Tender Attachments

Technical Write-up/Drawings

Document : CHECKLIST TO BE FILLED BY THE CONTRACTOR

Document : TECHNICAL FORMAT TO BE FILLED BY BIDDER

Document : TECHNO-COMMERICAL BID FORMAT

Document : Air receiver drg

Document : GN2 RECEIVER

Document : RFP SPECIFICATIONS

Document : BIDDER MINIMUM QUALIFICATION CRITERIA

Document : EVALUATION CRITERIA

Instructions To Vendors

9. We are proposing to invite Tenders in Two Parts viz., Part-I Techno and Commercial & Part-II Price. All Tenderers are requested to follow carefully the following instructions before preparing their offer.

1.PART- I- TECHNO COMMERCIAL BID -

(1)This part should contain detailed Specifications of the items quoted by you along with Technical Literature and Leaflets if any.

(2)All the Commercial terms and Conditions applicable also should be indicated separately under separate heads.

(3)The Commercial terms such as delivery terms, delivery period, payment terms, warranty, validity of the offer, Installation & Commissioning, Duties and Taxes etc shall come into this.

(4)Either Technical Specifications or Terms & Conditions as above should be very clearly reflected items wise with reference to the items called for in the tender.

(5)Please not those Prices should not be indicated in this part.

(6)Any deviations from the Technical Specifications and Commercial Terms shall be indicated separately.

2.PART II PRICE BID

- (1)The prices applicable for the items, item wise in response to the tender shall come into this part.
- (2)Tender shall indicate very clearly item wise prices with reference to their Technical Offer.

C. Bid Templates

C.1 Technical Bid - Supply of SS GN2 Receiver & Air Receivers

1. AUTOCLAVE / FABRICATION: Design, Fabrication, Testing and Supply of Stainless Steel Nitrogen receivers as per the Specifications enclosed.

Document : RFP SPECIFICATIONS

2. AUTOCLAVE/FABRICATION:Design, Fabrication, Testing and Supply of Stainless Steel Air receivers as per the Specifications enclosed.

Item specifications for AUTOCLAVE

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Description	Compliance	Yes / No / Explain		
2	Offers shall be submitted in two parts 1) Techno-Commercial Bid, 2) Price bid	YES/NO	Yes / No / Explain		
3	Techno- Commercial un-priced bid format filled and submitted	YES/NO	Yes / No / Explain		
4	Format as per 2.3 in Section-A filled and submitted	YES/NO	Yes / No / Explain		
5	Price details (Detailed Break-up) as per Price bid format filled and submitted	YES/NO	Yes / No / Explain		
6	Proposal Document: As per General terms and condition, Section –A Clause A	YES/NO	Yes / No / Explain		
7	Preparation of bids: As per General terms and condition, Section- A Clause B	YES/NO	Yes / No / Explain		
8	Bid submission: As per General terms and condition, Section –A Clause C	YES/NO	Yes / No / Explain		

9	Bid evaluation: As per General terms and condition, Section-A Clause D	YES/NO	Yes / No / Explain		
10	Delivery Period: As per General terms and condition, Section-A, Clause E , point 1	YES/NO	Yes / No / Explain		
11	Taxes and Duties: As per General terms and condition, Section-A Clause E , point 2	YES/NO	Yes / No / Explain		
12	Make in India: As per General terms and condition, Section-A Clause E , point 3	YES/NO	Yes / No / Explain		
13	Terms of Payments: As per General terms and condition, Section-A Clause E , point 4	YES/NO	Yes / No / Explain		
14	Liquidated damages: As per General terms and condition, Section-A Clause E , point 5	YES/NO	Yes / No / Explain		
15	Warranty: As per General terms and condition, Section-A Clause E , point 6	YES/NO	Yes / No / Explain		
16	Performance bank guarantee: As per General terms and condition, Section-A, Clause E , point 7	YES/NO	Yes / No / Explain		
17	Security deposit: As per General terms and condition, Section-A Clause E , point 8	YES/NO	Yes / No / Explain		
18	Force majeure: As per General terms and condition, Section-A Clause E , point 9	YES/NO	Yes / No / Explain		
19	Secrecy: As per General terms and condition, Section-A Clause E , point 10	YES/NO	Yes / No / Explain		
20	Compliance with security requirements: As per General terms and condition, Section-A, Clause E , point 11	YES/NO	Yes / No / Explain		

21	Confidentiality and proprietary right protection: As per General terms and condition, Section-A, Clause E , point 12	YES/NO	Yes / No / Explain		
22	Terms & Conditions to bidder: As per General terms and condition, Section-A, Clause E , point 13	YES/NO	Yes / No / Explain		
23	Unit rates: As per General terms and condition, Section-A Clause E , point 14	YES/NO	Yes / No / Explain		
24	Surveillance Inspection by Department: As per General terms and condition, Section-A Clause E , point 15	YES/NO	Yes / No / Explain		

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	ii.Service Conditions:	YES/NO	Yes / No / Explain		
2	a) Medium : Compressed air	YES/NO	Yes / No / Explain		
3	b) Operating Pressure : 15 bar	YES/NO	Yes / No / Explain		
4	c) Design pressure : 20 bar.	YES/NO	Yes / No / Explain		
5	d) Operating Temperature : 50 Deg .C.	YES/NO	Yes / No / Explain		
6	iii.Design standard: ASME SEC.VIII-DIV-1, Latest edition up to 2004 year (up to march).	YES/NO	Yes / No / Explain		
7	iv.Testing:	YES/NO	Yes / No / Explain		
8	a) Hydro test Pressure : As per code.	YES/NO	Yes / No / Explain		
9	b) Pneumatic Leak Test : 6 bar	YES/NO	Yes / No / Explain		

10	v.Fabrication process: Sl.No. 'a' to 'd'	YES/NO	Yes / No / Explain		
11	vi. Approval: Approval by Purchaser/TPI for Design calculations and fabrication drawing prior to commencement of work and Dispatch document prior to dispatch.	YES/NO	Yes / No / Explain		
12	vii.Material of Construction: SA 240 Gr 304L	YES/NO	Yes / No / Explain		
13	viii.Nozzles: Sl.No. 'a' to 'c'	YES/NO	Yes / No / Explain		
14	ix.Earth boss	YES/NO	Yes / No / Explain		
15	x..Name plate	YES/NO	Yes / No / Explain		
16	xi. Lifting lugs	YES/NO	Yes / No / Explain		
17	xii.Accessories required	YES/NO	Yes / No / Explain		
18	xiii. Supporting legs	YES/NO	Yes / No / Explain		
19	xiv.Third party inspection	YES/NO	Yes / No / Explain		
20	xv. QAP	YES/NO	Yes / No / Explain		
21	xvi. Stage inspection	YES/NO	Yes / No / Explain		
22	Design pressures, Tank capacities, shell and Dome Thickness & Allowances and schedule of quantity: Service: GN2 & Air Receivers. As per sl.no 1.3	YES/NO	Yes / No / Explain		

23	Welding as per sl.no. 1.4	YES/NO	Yes / No / Explain		
24	Radiography as per sl.no. 1.5	YES/NO	Yes / No / Explain		
25	Heat treatment as per sl.no. 1.6	YES/NO	Yes / No / Explain		
26	i.Solution annealing	YES/NO	Yes / No / Explain		
27	ii.Stress relieving	YES/NO	Yes / No / Explain		
28	Testing as per sl.no.1.7	YES/NO	Yes / No / Explain		
29	a.Testing of materials	YES/NO	Yes / No / Explain		
30	b.Hydraulic pressure test	YES/NO	Yes / No / Explain		
31	i.Before Hydro test all the surfaces of the tanks shall be mechanically cleaned.	YES/NO	Yes / No / Explain		
32	c.Pneumatic Leak Test	YES/NO	Yes / No / Explain		
33	Material of Construction as per Table-I, sl.no 1.8	YES/NO	Yes / No / Explain		
34	General conditions, PART-II	YES/NO	Yes / No / Explain		
35	Acceptance of QAP as per Annexure - A	YES/NO	Yes / No / Explain		
36	Procedure for Mechanical cleaning, Degreasing Pickling, Passivation and Painting (Inner surface and outer surface) as per Annexure - B	YES/NO	Yes / No / Explain		

37	Surface preparation & painting of epoxy primer Preferable make: Berger/Bombay paints/CDC/GP	YES/NO	Yes / No / Explain		
38	Checklist to be filled by the bidder, Section-C, Section - C, Sl.No: I	YES/NO	Yes / No / Explain		
39	Format to be filled by the bidder, Section-C, Section - C, Sl.No: II	YES/NO	Yes / No / Explain		
40	Confirm Bidder minimum Qualification criteria is filled and submitted, Section - C, Sl.No: III	YES/NO	Yes / No / Explain		
41	Confirm Evaluation criteria is filled and submitted, Section - C, Sl.No: IV	YES/NO	Yes / No / Explain		
42	SUPPLIER TO GIVE POINT WISE CONFIRMATION	COMPLIANCE	Yes / No / Explain		

43	DESIGN,FABRICATION,INSPECTION,TESTING AND SUPPLY OF STAINLESS STEEL NITROGEN RECEIVERS (CAPACITY:1 cu.m) PART - I TECHNICAL SPECIFICATION: Over all dimensions and internal details shall be as per the drawings enclosed.Drg. No. SS/GN2 RECEIVER /01	YES/NO	Yes / No / Explain		
44	SCOPE OF WORK as per Sl.no. 1.2	YES/NO	Yes / No / Explain		
45	i.Type:Vertical, cylindrical with 2:1 Ellipsoidal dished ends.QTY. - 11 Nos.	YES/NO	Yes / No / Explain		
46	ii.Service Conditions: a) Medium : Nitrogen gas	YES/NO	Yes / No / Explain		
47	b) Operating Pressure : 10 bar	YES/NO	Yes / No / Explain		
48	c) Design pressure : 12.5 bar.	YES/NO	Yes / No / Explain		
49	d) Operating Temperature. : 50 Deg .C.	YES/NO	Yes / No / Explain		
50	iii.Design standard: ASME SEC.VIII-DIV-1, Latest edition up to year 2004 (up to march).	YES/NO	Yes / No / Explain		
51	iv.Testing.:	YES/NO	Yes / No / Explain		
52	a) Hydro test Pressure : As per code	YES/NO	Yes / No / Explain		

53	b) Pneumatic Leak Test : 10 bar	YES/NO	Yes / No / Explain		
54	v.Fabrication process: Sl.No. 'a' to 'd'	YES/NO	Yes / No / Explain		
55	DESIGN,FABRICATION, INSPECTION, TESTING AND SUPPLY OF STAINLESS STEEL AIR RECEIVERS (CAPACITY:5 cu.m) PART - I TECHNICAL SPECIFICATION: Over all dimensions and internal details shall be as per the drawings enclosed.Drg. No. SS/AIR RECEIVER /01	YES/NO	Yes / No / Explain		
56	Scope of work as per S.No. 1.2	YES/NO	Yes / No / Explain		
57	Design Parameters for AIR RECEIVER: As per Sl.no 1.2	YES/NO	Yes / No / Explain		
58	i.Type:Vertical, cylindrical with dished ends.QTY. - 03 Nos.	YES/NO	Yes / No / Explain		

Supporting Documents required from Vendor

1. Acceptance and Sign with stamp on the "QAP- Quality Assurance Plan" as per annexure-I of the specifications
2. Fill and submission of "Format to be Filled by Bidder" as per annexure-III of the specifications.
3. Submission of drawings and design calculations.

4. Submission of Specification & Technical data sheets of all supply items.

5. The supplier shall sign and stamp each page of specification as token of acceptance and submit along with the offer

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	The Supplier shall design the Air receivers and prepare detailed fabrication drawings, the design calculations and drawings shall be sent to the purchaser and TPI for approval Before commencement of fabrication works.	Yes / No / Explain	
2	Supplier shall submit the offer along with annexure-I (QAP) and annexure-III (Format to be Filled by Bidder) . Offer will not be considered without submission of Annexure-I and Annexure-III	Yes / No / Explain	
3	The supplier shall submit the offer in adherence with the specifications given. Any deviation or non-conformance shall be clearly spelt out in the offer	Yes / No / Explain	
4	The supplier shall design the GN2 receivers and prepare detailed fabrication drawings, the design calculations and drawings shall be sent to the purchaser and TPI for approval. Before commencement of fabrication works.	Yes / No / Explain	
5	Delivery Term: Please quote your rates on FOR- SDSC SHAR, Sriharikota basis including P&F & freight charges. If you quote YES or ACCEPTED or NOTED or AS PER TENDER SPECIFICATIONS, it means your prices are FOR- Sriharikota basis including P&F and FREIGHT charges. Even if you quote P&F and FREIGHT charges are extra in price bid or at any other place, this only holds good.	Yes / No / Explain	

6	<p>Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1 plus 15% (Selected by Buyer) of margin of purchase preference/price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total QUANTITY.</p> <p>Clearly specify whether you are eligible for MSE Preference. If YES, supporting documents shall be uploaded.</p>	Yes / No / Explain	
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7	<p>As per Notification No. 05/2018 CUSTOMS Dtd. 25.01.2018 ISRO is eligible to reduced rate of customs duty @ 10.775% (CD@5% plus Surcharge@10% plus IGST@5%). In case of foreign component involved, We will provide Customs Duty Exemption Certificate in case of Import Orders/ imported supplies/ High Sea Sales. In this connection, tenderer has to provide the following.</p> <p>(i) Please indicate whether your rate is inclusive of this Customs duty @ 10.775% or extra.</p> <p>(ii) what would be the percentage of foreign exchange component you have considered in your quote.</p> <p>(iii) List of items with approximate quantities which require customs duty exemption certificate to be provided.</p> <p>Note: Suppliers are requested to explicitly state whether Quoted percentage is Extra or Inclusive, If Not i.e, if you quote as "YES/Accepted /Noted/ As per tender specifications" it will be treated as included in the quoted basic cost.</p> <p>Please note that in Two part tenders, only percentage should be mentioned otherwise those offers shall be summarily rejected.</p>	Yes / No / Explain	
8	<p>VALIDITY OF OFFER: - The validity of offers/tenders should be 180 days from the date of opening of the tenders. Tenders shorter than offer validity mentioned above will not be considered for evaluation.</p>	Yes / No / Explain	
9	<p>Delivery Period: 08 months from the date of Purchase Order.</p>	Yes / No / Explain	
10	<p>Payment Term :- 100% payment shall be made through PFMS within 30 days of receipt and acceptance of the item at our site or as per clause no.E.4 of General terms and conditions(Section-A) of tender specifications.</p>	Yes / No / Explain	
11	<p>Liquidated Damages (LD) :- Since delivery is the essence of this order, LD @ 0.5% per week or part thereof subject to a maximum of 10% of the order value for the delayed period of supply/ scope of work.</p>	Yes / No / Explain	

12	Warranty:- Warranty for the offered item shall be from the date of installation/acceptance of the item at our site for a minimum period of one year or as specified in the tender document.	Yes / No / Explain	
13	Performance Bank Guarantee (PBG) :- You have to submit a PBG from a Nationalised / Scheduled Bank for 3 % of the order value at the time of supply valid till the completion of warranty period plus 60 days towards claim period.	Yes / No / Explain	
14	Security Deposit (SD) :- 3 % value of the order shall be deposited with SDSC within 10 days from the date of the Purchase Order towards security deposit in the form of Bank Guarantee towards performance of the Contract valid till completion of the contract period plus sixty days towards claim period. (This will be returned by SDSC immediately on execution of the order satisfactorily as per order terms. If not, the amount will be forfeited). NOT REQUIRED FOR LANDED COST BELOW RS.5 LAKHS.	Yes / No / Explain	
15	In case, if parties are unable to provide two separate BGs, i.e., one for SD & one for PBG, they can submit a combined BG for SD & PBG for 3 % of the Order value valid till the completion of total contractual obligation (i.e., Supply period plus warranty period plus 60 days). Please confirm.	Yes / No / Explain	
16	Insurance :- Being a Govt. Of India Dept., Insurance is not required at our cost. Please ensure the safe delivery of the ordered item with proper transport worthy packing.	Yes / No / Explain	
17	Remarks if any	Yes / No / Explain	
18	In case of foreign orders: (a) Please specify whether any Export clearance is required. (b) Please specify whether any agency commission is involved or not	Yes / No / Explain	

19	<p>Special conditions against Indian Agents submitting quotations in Foreign Currency.</p> <p>(a) Foreign Principals proforma invoice indicating the commission payable to the Indian Agent and nature of after sales service to be rendered by the Indian Agent.</p> <p>(b) Copy of Agency agreement with the Foreign Principal, precise relationship between them and their mutual interest in the business.</p> <p>(c) The enlistment of the Indian Agent with Director-General of Supplies & Disposals under the Compulsory Registration Scheme of Ministry of Finance.</p>	Yes / No / Explain	
20	Please provide valid/currently using E-mail Id & Contact no. for seeking further clarifications if any	Yes / No / Explain	

21	<p>For this procurement, bids from Class-I & class-II Local Suppliers are admissible. Hence provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DIPP), Ministry of Commerce & Industries vide letter No. P-45021/2/2017-PP(BE-II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments: Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).</p> <p>(a) Class-I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.</p> <p>(b) Class-II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order.</p> <p>You are requested to provide Self Declaration Certificate that the offered Item meets Local Content Requirement of Class 1 or Class 2 as per Make in India(MII) Policy, clearly indicating the Percentage of local content & the details of Location(s) at which value addition is made in the offered product.</p> <p>It may be noted that Local Content shall not include services such as Transportation, Insurance, Installation, Commissioning, Training and after sales service support like AMC/CMC etc.</p>	Yes / No / Explain	
22	<p>Please quote applicable GST Rate in Tax column. If your rate is included in price, you have to quote tax as "0" in Tax Column and mention the same in Remarks column.</p>	Yes / No / Explain	

23	PART ORDER: We reserve the right to place part order based on item wise L1 offer, if required. Please confirm acceptance for part order.	Yes / No / Explain	
24	Do you have Unique GeM Seller ID? If YES, provide details If NO, As per Office Memorandum No 6/9/2020-PPD dated 24/08/2020 of Department of Expenditure, it shall be mandatory for sellers providing Goods and Services to Central Government Organizations to be registered on GeM and obtain a Unique GeM Seller ID, at the time of Placement of Order/acceptance of contract. Tenderers shall ensure the same.	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	AUTOCLAVE / FABRICATIO N: Design, Fabrication, Testing and Supply of Stainless Steel Nitrogen receivers as per the Specifications enclosed.	11.00 Nos.		-		
2	AUTOCLAVE /FABRICATI ON:Design, Fabrication, Testing and Supply of Stainless Steel Air receivers as per the Specifications enclosed.	3.00 Nos.		-		

**REQUEST FOR PROPOSAL FOR DESIGN, FABRICATION, INSPECTION,
TESTING AND SUPPLY OF STAINLESS STEEL NITROGEN RECEIVERS
AND COMPRESSED AIR RECEIVERS**

**Technical Specifications, Requirements, Terms & Conditions for
Design, Fabrication , Inspection, Testing And Supply Of Stainless Steel
Nitrogen Receivers And Compressed Air Receivers**

November 2022



**SATISH DHAWAN SPACE CENTRE
Indian Space Research Organization
Department of Space, Government of India
Sriharikota 524124
Tirupati District, Andhra Pradesh State, India**

This RFP /Technical specification document is organized in four sections as follows.

Section – A General Terms and Conditions

Section – B Technical Specification for Details of works to be carried out

Section – C Formats to be filled by bidder

Date of Notification issued by ISRO	:	As per e-procure notification.
Last Date of downloading tender Document by tenderer	:	As per e-procure notification
Last date of submission of tender documents in online by tenderer	:	As per e-procure notification
Last date of Bid sealing in online by ISRO	:	As per notification
Last date for giving open authorization in online by tenderer	:	As per notification

Section – A
General Terms and Conditions

1.0 Terms and Conditions for Bids

Offers shall be submitted in TWO-PARTS as per the details given below:

- Part-I – Techno-commercial Bid
- Part-II – Price Bid

2.0 Details to be furnished in Techno-commercial Bid & Price Bid as follows:

2.1 Part-I – Techno-commercial Bid

The tenderer shall furnish point-wise confirmation for the technical specifications given in the enquiry. However, change of specifications/ deviations (if any) shall be brought out in the offer as deviation summary with detailed justification. Exclusions, if any from scope of supply shall be clearly indicated in the offer.

Tenderer need to furnish the details related to commercial terms indicating payment terms, details of bank guarantee in case of advance payments etc.

Tenderer shall quote the prices on “FOR-Sriharikota”.

The overall landed cost to SDSC SHAR will be taken as the basis towards finalization of the purchase order.

The Bidders shall indicate clearly the delivery/time period for supplying the items to SDSC SHAR.

2.2 Format to be filled signed and shall be uploaded by the supplier in techno-commercial bid:

Sl. No.	Description	Yes/No
1	The scope of work is fully understood by the supplier	
2	Confirm all the specifications and terms & conditions are acceptable	
3	The individual item wise cost shall be quoted as per the Price bid format	
4	The details like taxes are considered or not	
5	Confirm the modality of execution of contract, terms, rules & regulations, general conditions of execution of contract is read and acceptable to all points. If any deviation, the same shall be highlighted.	
6	Bidder Qualification Criteria and Evaluation criteria formats duly filled and signed.	

2.3 Part-II: Price bid indicating the price.

- Price bid should be submitted by the tenderer as per the following format price break-up.
- In view of Two Part Tender, the Offers submitted contrary to above instructions will be summarily rejected.

Serial No.	Description of the works to be carried out	Qty.	Units	Unit cost (Including of Transportation, Testing Charges) Rs.	Applicable Tax in Rs.	Total cost Rs.
1.	Design, Fabrication, Testing and Supply of Stainless Steel Nitrogen receivers as per the Specifications.	11	Nos.	Unit cost value to be indicated (Rs.)	Applicable Taxes value to be indicated (Rs.)	Total cost Value (Rs.)
2.	Design, Fabrication, Testing and Supply of Stainless Steel Air receivers as per the Specifications.	3	Nos.	Unit cost value to be indicated (Rs.)	Applicable Taxes value to be indicated (Rs.)	Total cost Value (Rs.)

A. PROPOSAL DOCUMENT

- 1.1 Bidder shall sign & stamp each page of the tender document as token of his acceptance and submit the same along with his offer.
- 1.2 Proposal documents shall remain the property of SDSC SHAR and shall not be used for any another purpose without the consent of SDSC SHAR.
- 1.3 The proposal shall be completely filled in all respects and shall be tendered together with requisite information. Any offer incomplete in any particulars is liable to be rejected.
- 1.4 The Proposals shall be submitted on-line before the time limit for bid submission specified in the Letter Inviting Bid.
- 1.5 Supplier shall submit the open authorization on-line within the time limit specified in the Letter Inviting bid.
- 1.6 The Proposal will be opened on the date and on the time specified in the Letter Inviting Bid or as soon thereafter as convenient. Proposal not received in time will not be considered.
- 1.7 Bidders shall set their quotations in firm figures and without variations/additions in the terms of the Proposal documents.

B. Preparation of Bids

1.1 Validity of Offer:

Bid shall remain valid for acceptance for a minimum period of 3 (three) months from the due date of submission of the Bid. The Bidder shall not be entitled during the said period to revoke or revise his Bid or to vary the Bid except and to the extent required by SDSC SHAR in writing. Bid shall be revalidated for extended period as required by SDSC SHAR in writing. In such cases, unless otherwise specified, it is understood that validity is sought and provided without varying either the quoted price or any other terms & conditions of Bid finalized till that time.

1.2 Cost of Bidding:

All direct and indirect costs associated with the preparation, submission of bid shall be to Bidder's account, and SDSC SHAR will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bid process.

1.3 Applicable Language/ measurements:

The bid and all correspondence incidentals to and concerning the bid shall be in the English Language. For supporting document and printing literature submitted in any other language, an accurate English Translation shall also be submitted. Responsibility for correctness in translation shall lie with the Bidder. All the measurements shall be given in metric system.

1.4 Arrangement of Bid:

The Bid shall be neatly presented on white paper with consecutively numbered pages. It should not contain any terms and conditions, which are not applicable to the Bid. The Bid and all details submitted by the bidder shall be signed and stamped on each page as token of acceptance, by a person legally authorized to enter into agreement on behalf of the Bidder. (Corrections/ alteration, if any, shall also be signed by the same person).

1.5 Schedule of Prices:

The schedule of prices shall be read in conjunction with all the sections of proposal document.

1.6 Documents Comprising the Bid:

Bids shall be arranged in the following order.

- Price bid shall be filled online in the price bid format.
- Schedule of unit prices also to be filled as per price Bid format and no separate document shall be attached.
- Deviations in terms and conditions, assumptions etc. shall be stipulated in format specified in the portal.
- SDSC SHAR will not take cognizance of any such statement and may at their discretion reject such bids.

C. BID SUBMISSION

- Bids duly filled in by the Bidder should invariably be submitted as stipulated in the Letter inviting bid. Bids shall be submitted in the following manner.
Price Part of the Bid.
- SDSC SHAR reserves the right to reject any or all the Bids without assigning any reasons thereof.

D. BID EVALUATION

1. During evaluation, SDSC SHAR may request bidder for any clarification on the bid or additional documents.
2. Techno-commercial discussion shall be arranged with bidder, if needed. Bidder shall depute his authorized representatives for attending discussions. The representatives attending the discussions shall produce authorization from his organization to attend the discussion and sign minutes of meeting on behalf of his organization if required. The authorized representative must be competent and empowered to settle/decide on all technical and commercial issues.
3. Bidder must provide the point-by-point compliance to the technical specifications along with deviations. The tender will be rejected, if the deviations are not acceptable to the department.
4. The time schedule for completion is given in the proposal document. Bidder is required to confirm the completion period unconditionally.
5. If necessary, to arrive at evaluated prices, wherever applicable, loading on total quoted prices shall be done.
6. The bidder, whose bid is accepted by SDSC SHAR, shall be issued a Purchase Order (PO) to proceed with the work. Bidder shall confirm acceptance by returning a signed copy of the PO.
7. Order can be split on individual L1 basis.

E.1. Delivery Period:

Eight months (08) from the date of release of purchase order.

Time line /Time schedule is as follows:

Sl. No.	Description of activity	Time line
1	Release of purchase order	T_0
2	Submission of Specification & Technical data sheets of all supply items, drawing & design calculations for GN ₂ & Air Receivers & Approval of above Specification & Technical data sheets of all supply items, drawing & design calculations by department	$T_1 = T_0 + 1 \text{ month}$
3	Procurement of materials, Fabrication & Hydro testing, Pickling & passivation etc.,	$T_2 = T_1 + 6 \text{ months}$
4	Predelivery inspection, Dispatch Clearance by Department after review of inspection release note (IRN) and delivery of items to the SDSC SHAR.	$T_3 = T_2 + 1 \text{ month}$

Party has to inform well before advance information(minimum-15days) to the purchaser for the Pre delivery inspection.

E.2 TAXES AND DUTIES

i. GST

GST as applicable based on the HSN code.

ii. INCOME TAX

Income tax at the prevailing rate as applicable and if applicable from time to time shall be deducted from the supplier's bills as per Income Tax Act and a certificate issued (TDS Certificate).

E.3. Make in India:

General Terms & conditions for Bidders: For this procurement, bids from Class-I & class-II Local Suppliers are admissible. hence provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DIPP), Ministry of Commerce & Industries vide letter No. P-45021/2/2017-PP(BE-II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments:

(a) Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).

(b) Class-I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.

(c) Class-II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order

(d) Verification of local content:

(i) The Class I local supplier/ Class- II local supplier at the time to tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for Class-I local supplier / Class II local supplier as the case may be. They shall also give details of the location(s) at which the local value addition is made.

(ii) In case bid value is in excess of Rs. 10 Cr., Class-I local supplier / Class-II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

(iii) False declarations will be in breach of the code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (GFR) for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the general Financial Rules along with such other actions as may be permissible under Law.

(iv) A supplier who has been debarred by any procuring entity for violation of this order shall not be eligible for preference under this order for procurement by any other procuring entity for the duration of the debarment.

(e) The percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected.

(f) Preference will be given to Class-I Local supplier and in their absence, Class-II Local supplier will be considered.

E.4 Terms of Payments:

Category 1:

Our general payment terms are within 30 days after receipt and acceptance of items at purchaser's (SDSC-SHAR Sriharikota) Site.

Category 2:

a) After placement of confirmed Purchase order: (If required)

20% of order value as advance payment against submission of advance bank guarantee for an equal amount from a reputed nationalized/scheduled bank and shall be valid till contract completion period. Format of Bank guarantee shall be obtained from Department after award of contract.

b) After receipt at SDSC SHAR, Sriharikota:

- i) 70% payment will be made after receipt of items at SDSC SHAR.
- ii) Balance 10% shall be paid against satisfactory performance of system against PBG.

c) Advance Payment

Wherever advance payment is requested, Bank Guarantee from any Nationalized Bank/Scheduled Bank should be furnished. In case of advance payments, if the vendor/supplier is not supplying the material within the delivery schedule, interest will be levied as per the Marginal Cost of Lending Rate (MCLR) of SBI plus 2% penal interest.

Interest will be loaded for advance payments/stage payments as per the MCLR of SBI and will be added to the landed cost for comparison purpose. In case of different milestone payments submitted by the parties, a standard and transparent methodology like NPV will be adopted for evaluating the offers.

E.5. Liquidated Damages (LD):

Since delivery is the essence of this order, LD @ 0.5% per week or part thereof subject to a maximum of 10% of the order value for the delayed period of supply/ scope of work.

E.6. Warranty:

Warranty for the offered item shall be from the date of installation/acceptance of the item at our site for a minimum period of one year.

E.7. Performance Bank Guarantee (PBG): The contractor has to submit a PBG from a Nationalized / Scheduled Bank for 3% of the order value at the time of supply valid till the completion of warranty period plus 60 days towards claim period. OR 3% of the order value shall be hold till the completion of warranty period

E.8. Security Deposit (SD):

3% value of the order shall be deposited with SDSC within 10 days from the date of the Purchase Order towards security deposit in the form of Bank Guarantee towards performance of the Contract valid till completion of the contract period plus sixty days towards claim period. (This will be returned by SDSC immediately on execution of the order satisfactorily as per order terms. If not, the amount will be forfeited).

E.9. Force majeure

For the purpose of the contract, the term “force majeure” shall mean strikes, lockouts and other conflicts, acts of an enemy, war hostile blockade, disturbance of the public order, stroke of lightning, fire under thunderstorm, flood explosion and acts of god and government acts beyond the reasonable control of the party claiming force majeure. If due to circumstances of force of majeure, either of the parties to this contract partially or completely unable to fulfil its obligations in accordance with this contract, the said party shall be obligated to immediately inform the other party of occurrence of the circumstances of force majeure in writing. The party claiming force majeure shall also be obligated to keep the other party informed of the events in the process related to the occurrence of the said force majeure circumstances and of the possible degree of non-fulfilment or delay in fulfilment of the obligations in accordance with this contract. All the obligations of the party that invokes the plea of force majeure shall be suspended as long as the said force majeure circumstances continues to exist and not longer, and the said party shall not be regarded as having committed breach or failure, nor shall be held responsible to make compensation for losses suffered by either party. The terms of fulfilment of the obligation shall be duly extended for the period during which the circumstances of force majeure lasts. The fulfilment of the obligations shall be resumed immediately after the cessation of the said circumstances of force majeure. If the said force majeure circumstances last for more than sixty days, parties to this Contract shall discuss and agree upon further action. Should the state of non-fulfilment of obligation under the Contract be more than three (3) months and nothing could be done to make a statement about ceasing of obligations of Contract, within not more than three (3) months either party has the right to cancel the Contract mentioned below. The ownership of all materials, parts and unfinished work paid for by the SDSC SHAR shall vest with the SDSC SHAR or transferred to the SDSC SHAR as soon as they have paid for. The amount of compensation payable/recoverable shall be fixed on the basis of evidence produced by party and acceptable by the purchaser.

E.10. Secrecy:

The party shall take all reasonable steps necessary to ensure that all persons employed in connection with the Purchase Order have full knowledge of the Official Secrets Act and the regulations framed there under. Any breach of the aforesaid conditions shall entitle the purchaser to cancel the Purchase Order and if necessary to go ahead with the purchase at the risk and cost of the party in addition to any other penal action it may take at its discretion.

E.11. Compliance with security requirements:

The party shall strictly comply with the security rules & regulations of the purchaser. The party shall complete the required formalities including verification of character & antecedents, of the persons engaged or deployed by him, through police or any other authority.

E.12. Confidentiality and proprietary right protection:

The party shall be obliged to preserve the confidentiality of the proprietary information received, exchanged between each other during the period of the Contract. Technical documentation published and/or claimed for a patent shall be effected by both the parties only on mutual decisions and approval of both the parties, during the existence of this agreement.

E.13. Terms & Conditions to Bidder

In case of any conflict/contradiction, the documents shall prevail over one another in the following order:

- I. For all commercial, contractual and general conditions, Notice Inviting Tender (NIT).
- II. Any contradiction either between various parts of document or in the content of the document itself shall be a matter of clarification to be obtained by the bidder from the purchaser. The purchaser's decision shall be final and binding.
- III. The Bidder shall satisfy the department that he possesses the necessary technical experience for design & execution and has at his disposal suitable facilities and crew to ensure that his work shall be of the best quality and workmanship. Necessary particulars in this regard shall be furnished with the offer.
- IV. Successful Bidder shall obtain approval from department for selecting sub-suppliers and makes for any of the equipment/ parts.
- V. An unpriced copy of the order on the sub-suppliers comprising all detailed specifications and the quantities of the material ordered, bill of material including necessary drawings thereof, shall be sent to department immediately after such order is placed by the successful Bidder.
- VI. The approval of drawings and/or inspection by Department and/ or their authorized representative shall not absolve or relieve the bidder from any of his obligation under this contract and they shall be wholly and solely responsible for the satisfactory operation and guaranteed performance of the systems and equipment forming part of the system.
- VII. All material, dimensional standards, tolerances, process of manufacture and testing procedures shall be in accordance with the latest revision of the standard codes specified in this Tendering Specification. In case where such suitable standards are not mentioned, any acceptable Indian/International Standards shall be adopted with prior approval of purchaser.
- VIII. All documents, instructions, name plates etc. shall be written in English language. All weights, dimensions and units shall be in metric system.
- IX. The Bidder shall quote for earliest delivery of the equipment / supplies as well as earliest completion of the entire work.
- X. The Bidder shall submit the Quality Assurance Plan containing the overall quality management and procedures which he proposes to follow for performing the work during various phases of execution.
- XI. At the time of award of contract, the detailed Quality Assurance Plan to be followed for execution of the contract will be mutually discussed and agreed to.
- XII. Materials used and equipment supplied shall be new and the best of their kind and shall comply with the latest revisions of all relevant standards. Manufacturer's certificates shall be furnished by the successful Bidder for the material used.
- XIII. Bidder shall clearly indicate the deviations taken from the Tender documents/specifications separately in his offer.
- XIV. Compliance statement to the technical specification given is to be duly signed & stamped and submitted as a part of acceptance.
- XV. Detailed QAP shall be submitted by the party after placement of order. Quality Assurance Plan mutually agreed by successful bidder and purchaser shall be complied. Party shall confirm the broad guidelines mentioned in the technical specification document.
- XVI. Deviations, if any, w.r.t technical and commercial terms & conditions shall be clearly brought out and deviation list to be added. If deviations are not listed separately, it will be presumed that the bidder is adhering to all the technical specifications and commercial terms & conditions given in this document.
- XVII. The delivery date is from the date of issue of PO to delivery of the material to SDSC by shall be quoted by the Purchaser. The successful Bidder shall adhere to the material delivery date.

- XVIII. Progress report shall be submitted by the successful Bidder at regular intervals on a format prescribed by the purchaser giving the status of approval of drawings, ordering and other materials ordered, manufactured, fabricated etc.
- XIX. After placement of purchase order, the following documents shall be submitted for approval.
- a) Schedule of work, technical data sheets/Specification of bought out items
 - b) Fabrication drawings
 - c) Welder qualification, PQR, WPS
 - d) Procedure for qualification of fabricated pipe lines
 - e) Quality assurance plan.

E.14. Unit Rates:

The Bidder shall quote item wise units and unit price and total units and total price of items as per price Bid format. The rates shall be valid until handing over the systems to purchaser.

E.15. Surveillance Inspection by Department:

- The Department, at their own discretion and on surveillance basis, shall have the right to depute their representative(s) to perform material receipt/ in-process/ final pre-delivery inspection at any phase during fabrication/ manufacture of any system/ subsystem/ component/ material at the Contractor's/ Sub-contractor's/ Sub vendor's premise. The Contractor shall obtain the necessary permission for the Department's representatives to visit the Sub-contractor's/ Sub-vendor's premise.
 - The participation and approval by the Department's representatives during the inspection/ review shall not absolve the Contractor of their responsibility to comply with the specification/ obligation of the Contract.

Section – B
**Technical Specification for details of works to be
carried out**

TECHNICAL SPECIFICATIONS FOR DESIGN, FABRICATION, INSPECTION, TESTING AND SUPPLY OF STAINLESS STEEL GASEOUS NITROGEN (GN₂) RECEIVERS AND COMPRESSED AIR RECEIVERS

1.1 GENERAL

i) Stainless steel GN₂ Receivers

The stainless steel GN₂ receivers are meant for storing gaseous nitrogen gas, meant for Deluge system requirements. The detailed specifications are given in the articles described below and drawings enclosed.

- Over all dimensions and internal details shall be as per the drawings enclosed.
Drg. No. SS/GN2 RECEIVER /01 (For GN₂ receiver of Cap. 1 cu.m).
- The supplier has to design the vessel as per ASME SEC.VIII-DIV-1 latest edition.

ii) Stainless steel Compressed Air Receivers

The stainless steel Air receivers are meant for storing compressed air, meant for breathing air requirements of the operating personnel wearing Breathing air suits. The detailed specifications are given in the articles described below and drawings enclosed.

- Over all dimensions and internal details shall be as per the drawings enclosed.
Drg. No. SS/AIR RECEIVER /01 (For Air receiver of Cap. 5cu.m).
- The supplier has to design the vessel as per ASME SEC.VIII-DIV-1 latest edition.

1.2 SCOPE OF WORK

Design, Fabrication, Inspection, testing and Supply of GN₂ receivers & Compressed air receivers to SDSC, SHAR as per the details given below:

Design Parameters for GN₂ Receiver & Compressed Air Receiver

	Design Parameters:		GN ₂ Receiver	Compressed Air Receiver
i.	Type	:	Vertical, cylindrical with 2:1 Ellipsoidal dished ends. 1m³ - 11 Nos	Vertical, cylindrical with dished ends. Capacity (water volume) 5m³ - 3 nos.
ii.	Service			
a)	Medium	:	Nitrogen gas	Compressed Air
b)	Operating Pressure	:	10 bar	15 bar
c)	Design pressure	:	12.5 bar	20 bar
d)	Operating Temperature	:	50 Deg .C	50 Deg. C
iii	Design standard	:	ASME SEC.VIII-DIV-1, Latest edition up to year 2004 (up to march)	ASME SEC.VIII-DIV-1, Latest edition up to year 2004 (up to march).
iv	Testing			
a)	Hydro test Pressure	:	As per code	As per code.
b)	Pneumatic Leak Test	:	10 bar	6 bar

v.	Fabrication Process
a)	Welding 100% by TIG with pure argon purging.
b)	Full Radiography of Butt joints.
c)	i, Solution annealing of dished ends. ii, Total vessel stress relieving after fabrication.
d).	Pickling & Passivation of internal and external surfaces as per approved procedure.
vi.	Approval
	Approval by Purchaser/TPI for
a).	Design calculations and fabrication drawing prior to commencement of work.
b).	Dispatch document prior to dispatch.

The Supplier shall design the GN2 receivers & Air receivers and prepare detailed Fabrication Drawings, the Design calculations and Drawings shall be sent to the Purchaser and TPI for approval. **Fabrication shall be taken up only after the approval from the third party / purchaser.**

- vii. Material of Construction: SA 240 Gr 304L.** The fabrication shall be carried out using tested and qualified materials only.
- All raw materials shall be new and properly identified and stamped by TPIA after review of original Mill Test Reports.
 - Plates shall be procured with suitable sizes to minimize weldment and preferably with 100% UT done at plate manufacturer site under TPIA.

viii. Nozzles:

- a) All the nozzles pipes shall be of seamless type and schedule shall be as per drawings.
- b) The nozzles shall be provided on to the tank as shown in the drawing. All the nozzle flanges are WNRF (serrated face) of SS forged quality & shall conform to ANSI B 16.5.
- c) All the nozzles shall be provided with blind flanges as per ANSI B 16.5 with necessary SS studs & nuts and SS spiral wound gaskets.

ix.	Earth Boss	:	Two numbers of earth boss shall be provided on the supports.
x.	Name Plate	:	Tank should have a name plate permanently fixed on support.
xi.	Lifting lugs	:	shall be provided for each tank.
	Note: Name plate shall not be welded to the shell or dish. This is mainly to minimise welding on the pressure parts.		
xii.	Accessories required	:	Foundation bolts & Nuts of suitable size. (Material: SS)
xiii.	Supporting Legs	:	Shall be design as per IS: 2825 and minimum number of supports as shown in the drawing
xiv.	Third Party Inspection (TPIA)	:	The GN ₂ receivers & Air receivers shall be fabricated under the inspection of Third Party DNV/LLOYDS
xv.	QAP is enclosed as Annexure-I for reference. However, detailed quality assurance plan to be prepared prior to fabrication and testing and shall be submitted to the Purchaser for approval.		
xvi.	Stage Inspection	:	During the course of fabrication, different stages of inspection are to be identified. At every stage, clearance has to be obtained.

1.3 Design pressures, Tank capacities, shell and Dome Thickness & Allowances and schedule of quantity: Service: GN₂ & Breathing Air

Sl. No.	Tank volume (Cu.m approx.,)	Design pressure bar	Design Temperature (Deg. C)	Corrosion Allowance	(Inclusive of Allowances)		Qty.
					Shell Thickness	End Dome Thickness	
1.	1 Cu.m	12.5	70°C	3 mm	10 mm*	12 mm* (Minimum) 14 mm* (Nominal)	11 Nos.
2.	5 Cu.m	20	70°C	3 mm	18mm*	18mm (Minimum) 20 mm (Nominal)	3 Nos.

Note:

- If design calls for lower thickness than minimum thickness specified above, the thickness specified above shall be provided. During design if higher thickness is required than minimum thickness specified above, higher thickness shall be provided.
- For Design of pressure parts of tank like shell & dished ends etc. Lower allowable stress shall only be considered. The valve selected at 60°C shall be indicated in design calculations.
- Each end dome shall be made out of Max. two number of joints only.

1.4 WELDING

- 100% by TIG process**, shall be adopted with high purity Argon gas purging and shielding, right from root to final passes for all butt welds (Long seams, 'C' seams, nozzles, pipe to flange joints) and all internal and external welds including fillets welds. **SMAW is not acceptable.**
- Welding consumables (filler wire) shall be used as per AWS classification or ER 308L
- It is recommended to minimize no. of cirseam weld joints on the cylindrical portion of the tank. The shell of tanks shall be fabricated with standard width plates.
- The welding procedure qualification and welder performance qualification shall be carried out. Only qualified welders shall be employed for the fabrication of tank.
- The dye used for Dye-penetrant test shall not have chlorides more than 50 PPM.
- Any re-work / repair have to be carried out as specified in ASME boiler and Pressure vessel code with the approval of Third party/purchaser.

1.5 RADIOGRAPHY:

- i) 100% on butt welded joints All welds other than butt welds shall be DP tested.
- ii) Radiography has to be carried out with x-ray machine with a sensitivity of 2-2T as per ASTM E-94.

1.6 HEAT TREATMENT:

- i) Solution annealing of the end domes shall be carried out to relieve stresses caused due to cold working as per code.
- ii) The total fabricated vessel has to be stress relieved at 420 ± 10 Deg. C as per standard practice (this operation shall be carried out prior to Hydrostatic test).
The detailed stress relieving cycle is as given below

Loading temperature	:	300°C (Max.)
Rate of heating	:	100°C/Hr \pm 20°C (Max.)
Soaking temp	:	420°C/Hr \pm 10°C
Soaking time	:	2 Hrs (Min.)
Rate of cooling	:	100°C/Hr (Max.)
Unloading temperature	:	300°C (Vessel to be air cooled at Atmospheric conditions after unloading)

- iii) Solution annealing of the end domes shall be carried out to relieve stresses caused due to cold working as per code. Stress relieving of tank shall be preferably carried out in an electric furnace. If oil furnace is used, the fuel shall be of lower Sulphur content oil like High-speed diesel.

1.7 TESTING:

a) Testing of materials:

Materials of construction shall be as given in Art No. 1.8 Bill of Materials **Table: 1** All materials used shall be tested as per Code in the Reputed Govt. approved testing labs before fabrication. All the plates proposed to be used for fabrication of Gaseous Nitrogen receivers & Air receivers, shall be subjected to mechanical, chemical and IGC tests as per A-262 Practice-E in spite of availability of Mill test certificates. **The plates used for construction of Air receivers shall also be ensured free from any lamination and manufacturing defects by 100% ultrasonic testing as per Practice ASTM A-435.**

Ferrite number in weldment shall be measured by testing and this shall be within the specified limit of 3% to 12%. Test certificates shall be furnished to purchaser for approval.

b) Hydraulic Pressure Test:

The Gaseous Nitrogen receivers & Air receivers shall be tested as per ASME Sec VIII, Div-1, Clean potable water with chloride content of less than 25 PPM, shall be used for testing.

i) Before Hydro test all the internal surfaces of the tanks shall be mechanically cleaned.

Heat Treatment of entire vessel shall be carried out prior to Hydro test. After the final hydro test the vessel has to be degreased, pickled and passivated & painted **as per the procedure given in Annexure-II**. The cleaning, pickling and passivation is to be carried out for both inside and outside surfaces of the vessel by filling/swabbing method.

c) Pneumatic Leak Test

After Hydro test the tank shall be tested at 6.0 bar (g) using dry Nitrogen gas with dew point of minus 40 Deg. C or better and leak check with soap solution at all welds and flanged joints.

1.8 Material of construction of tanks shall be strictly as given below.**Table-1 MATERIAL SPECIFICATION**

Sl. No.	Components	Material of Construction
1.	Shell and Dished ends	SA 240 GR 304 L
2.	Nozzle pipes	A 312 TP 304 L (Seamless)
3.	Nozzle flanges	A 182F 304 L
4.	Supports and all RF pads	SA 240 GR 304 L
5.	Studs and nuts	A193GrB8M/A 194 Gr.8M
6.	Gaskets	SS 304 Spiral wound with Teflon sand witted with SS 304 inner and outer rings
7.	Blind flanges	A 182 F 304
8.	All internals	SS 304 L
9.	Name plate / bracket	SS 304 L
10.	Pad plate	SA 240 GR 304 L
11.	Lifting Lugs	SA 240 GR 304
12.	Material Wherever not mentioned	SS 304 L
13.	Foundation Bolts & Nuts	SS 304 /304L
14.	Wherever not mentioned	SS 304L

PART-II GENERAL CONDITIONS

a) Monitoring

- The progress of work during the course of fabrication will be monitored by the Purchaser.

b) Submission of drawings and design calculation to the purchaser for approval prior to taking up fabrication.

- Supplier shall prepare detailed design calculations and fabrication drawings and submit to (Purchaser) and third-party inspection agency.

c) The Bidder has to engage **DNV/LLOYDS** as Third party inspection agency.

d) Production Master File

Three copies of production master files shall be supplied by the supplier along with the consignment. Each production master file should contain the following.

- Purchaser Order
- Design Calculations & Fabrication Drawings (As – built)
- Bill of Materials
- Materials Test Certificates
- WPS, WPQ, PQR and Welding Layouts
- Radiographic reports with sketch
- Pneumatic and Hydrostatic test certificates
- Certificates of clearance
- Name plate details.

All the above reports / test results shall be bound neatly.

e) One set of **soft copy** of as-built drawings shall be supplied to the Purchaser.

f) All radiography films pertaining to the tanks shall be supplied to the Purchaser.

ANNEXURE-A

SCOPE OF INSPECTION: AS PER QAP the vessel should be fabricated under the inspection of Third party/Purchaser representative as per QAP.

QUALITY ASSURANCE PLAN (QAP)

Sl. No	Characteristics / type of check	Ref. Document	Method of check	Quantum of check		
				Manufacturer QC	Third party	Purchaser
1.a	Identification of material with Mill T/C & ultrasonic T/C & witness of Physical, IGC Test and Ultrasonic test for plates.	As per PO	Visual	100% H	100% R	R
1. b	Identification of material & witness of Physical & IGC Test for pipes, fittings, gaskets, etc.,	As per PO	Visual	100% H	100% R	R
2	Review of fabrication drawings and Design Calculation	As per PO/ drawing	Material as per design	100% H	100% R	R
3	Review of welding procedure & Qualification	AWS	Review	100% H	100% R	R
4	Checking of root run & final weld by dye Penetrant test (butt welds)	As per PO	Visual	100% W	100% R	R
5	Marking of nozzle orientation	As per drawing	Location of nozzle	100% W	100% W	R
6	Dye Penetrant test on all fillet welds.	As per PO	Visual	100% W	100% R	R
7	Visual & Dimensional inspection	As per approved drawing	Dimensional inspection	100% W	100% W	R
8	Shell rolling, long seam & Cir. Seam fit up	As per std	Visual	100% W	100% W	R
9	Circularity of shells after rolling	As per std	Visual	100% W	100% W	R
10	Forming of dished ends & solution annealing	As per std	Visual	100% W	100% W/R	R
11	Fit up of nozzles, saddles and supports and welding	As per std	Visual	100% W	100% W	R
12	Evaluation of radiography films of all butt welds	As per PO	Film evaluation	100% W	100% R	R
13	Stress relieving of total fabricated tank	As per PO	Graph	100% W	100% W	R
14	Mechanical cleaning and buffing	As per PO	Visual	100% W	100% R	W/R
15	Hydraulic test as per design code	As per PO	Pressure hold method	100% W	100% W	W

Sl. No.	Characteristics / type of check	Ref. Document	Method of check	Quantum of check		
				Manufacturer QC	Third party	purchaser
16	Pneumatic leak test	As per PO	Pressure hold method	100% W	100% W	W
17	Picking, passivation and painting	As per PO	Visual	100% W	R	R
18	Filling with dry nitrogen at 0.5 bar (g)	As per PO	Gauge reading	100% W	R	R
19	Stamping of the vessel and issue of certificates	As per PO	Visual	100% R	100% W	---
20	Verification of Material test certificates	As per PO	Review	100% R	100% R	R
21	Production master file	As per PO	Document	100% R	R	R

Legend: R – Review, W – Witness, H – Hold.

Note: The purchaser reserves right to participate in the Inspection at any stage of fabrication & the bidder shall intimate the work progress periodically.

PROCEDURE FOR PICKLING, PASSIVATION & PAINTING

i) Mechanical Cleaning:

All metallic surfaces inside and outside having scales and foreign materials and all welded surfaces have to be cleaned. This can be done by scrubbing with metallic brush (Stainless Steel). The loose scales and powders obtained from the above process can be cleaned by blowing, sucking or washing with water. Mechanical cleaning shall be carried out before stress relieving.

ii) Degreasing, pickling and passivation shall be carried out as per the following method for the tank after hydro testing.

a) Degreasing :

Degreasing has to be done by soaking with hot detergent solution of Lissapol at 60 Deg. to 70 Deg.C for at least 2 hours till satisfaction.

b). Pickling and Passivation (Filling Method or Swabbing Method) Swabbing method using Barium Sulphate as an acid carrier for both inner and outer surfaces of the tanks.

The pickling and passivation is done with barium sulphate as carrier (chloride levels 25 ppm) in the form of paste. For each of pickling and passivation operations, the paste has to be applied on the surface and has to be kept for atleast two hours. Paste has to be removed with waste cotton in each operation and finally the surface has to be rinsed with DM water.

iii) Checking

All the relevant tests shall be carried out to ensure proper pickling and passivation as per ASTM A 380.

iv) Drying

The drying is done to remove water and this is done as given below:

Passing dry Nitrogen /Air having dew point less than – 40 Deg. C and free from oil and grease (less than 10 PPM) at 60 Deg. C till the moisture level at the exit comes to the inlet concentration value.

v) Sealing

After drying, the tank should be sealed so that ambient moisture never enters inside. The tank is to be pressurized to 0.5 bar with dry Nitrogen Gas at – 40 Deg. C dew point or better.

vi) Painting

After surface preparation, all external unmachined surfaces shall be provided with one coat of high built epoxy primer 120 to 130 microns DFT.

Preferable manufactures: Berger/Bombay paints/CDC/GP

Section – C
Formats to be filled by bidder

I. Checklist to be filled by the Contractor

The contractor shall confirm the following points. With regard to agreement on the scope defined in the work contract specifications without which the order will not be considered.

Sl. No.	Description	Confirmation / Remarks	Deviations , If any
1	Offers shall be submitted in two parts 1) Techno-Commercial Bid, 2) Price bid		
2	Format as per 2.2 in Section-A filled and submitted		
3	Price details (Detailed Break-up) as per 2.3 Price bid format filled and submitted		
4	Proposal Document: As per General terms and condition, Section -A Clause A		
5	Preparation of bids: As per General terms and condition, Section-A Clause B		
6	Bid submission: As per General terms and condition, Section -A Clause C		
7	Bid evaluation: As per General terms and condition, Section-A Clause D		
8	Delivery period: As per General terms and condition, Section-A Clause E , point 1		
9	Taxes and Duties: As per General terms and condition, Section-A Clause E, Point 2		
10	Make in India: As per General terms and condition, Section-A Clause E , point 3		
11	Payment term: As per General terms and condition, Section-A Clause E , point 4		
12	Liquidated damages: As per General terms and condition, Section-A Clause E , point 5		
13	Warranty: As per General terms and condition, Section-A Clause E , point 6		
14	Performance bank guarantee: As per General terms and condition, Section-A, Clause E , point 7		
15	Security deposit: As per General terms and condition, Section-A Clause E , point 8		
16	Force majeure: As per General terms and condition, Section-A Clause E , point 9		
17	Secrecy: As per General terms and condition, Section-A Clause E , point 10		
18	Compliance with security requirements: As per General terms and condition, Section-A, Clause E , point 11		
19	Confidentiality and proprietary right protection: As per General terms and condition, Section-A, Clause E , point 12		
20	Terms & Conditions to bidder: As per General terms and condition, Section-A, Clause E , point 13		
21	Unit rates: As per General terms and condition, Section-A Clause E , point 14		
22	Surveillance Inspection by Department: As per General terms and condition, Section-A Clause E , point 15		

II. FORMAT TO BE FILLED BY THE BIDDER

Sl. No.	Description	GN ₂ & Compressed Air Receivers	
		Compliance YES / NO	
1.	TECHNICAL SPECIFICATIONS: as per PART-I		
2.	SCOPE OF WORK as per Sl.no. 1.2		
Design Parameters for GN2 Receiver : As per Sl.no 1.2			
	i. Type:	Vertical, cylindrical with 2:1 Ellipsoidal dished ends. 1m³ - 11 Nos	
	ii. Service		
	Medium	Nitrogen gas	
	Operating Pressure	10 bar	
	Design pressure	12.5 bar	
	Operating Temperature	50 Deg .C	
	iii. Design standard	ASME SEC.VIII-DIV-1, Latest edition up to year 2004 (up to march)	
	iv. Testing		
	Hydro test Pressure	As per code	
	Pneumatic Leak Test	10 bar	
Design Parameters for Compressed Air Receiver : As per Sl.no 1.2			
	i. Type:	Vertical, cylindrical with dished ends. Capacity (water volume) 5m³- 3 nos.	
	ii. service		
	Medium	Compressed Air	
	Operating Pressure	15 bar	
	Design pressure	20 bar	
	Operating Temperature	50 Deg. C	
	iii. Design standard	ASME SEC.VIII-DIV-1, Latest edition up to year 2004 (up to march).	
	iv. Testing		
	Hydro test Pressure	As per code.	
	Pneumatic Leak Test	6 bar	

Sl. No.	Description	GN ₂ & Compressed Air Receivers
		Compliance YES / NO
	v. Fabrication process	
	vi. Fabrication shall be taken up only after the approval from the third party/ purchaser.	
	vii. Material of Construction:	
	viii. Nozzles	
	ix. Earth boss	
	x. Name plate	
	xi. Lifting lugs	
	xii. Accessories required	
	xiii. Supporting legs	
	xiv. Third party inspection	
	xv. QAP	
	xvi. Stage inspection	
3.	Design pressures, Tank capacities, shell and Dome Thickness & Allowances and schedule of quantity: Service: GN ₂ & Compressed Air Receiver. As per sl.no 1.3	
4.	Welding as per sl.no. 1.4	
5.	Radiography as per sl.no. 1.5	
6.	Heat treatment as per sl.no. 1.6	
	i. Solution annealing	
	ii. Stress releveling	
7.	Testing as per sl.no1.7	
	a. Testing of materials	
	b. Hydraulic pressure test	
	i.Before Hydro test all the surfaces of the tanks shall be mechanically cleaned.	
	c.Pneumatic Leak Test	
8	Material of Construction as per Table-I, sl.no 1.8	
9	General conditions, PART-II	

Sl. No.	Description	GN₂ & Compressed Air Receivers
		Compliance YES / NO
10	Acceptance of QAP as per annexure -I	
11	Procedure for Mechanical cleaning, Degreasing Pickling, Passivation and Painting (Inner surface and outer surface) as per annexure -II	
12	Surface preparation & painting of epoxy primer Preferable manufactures: Berger/Bombay paints/CDC/GP	

III. Bidder Minimum Qualification Criteria

The following are the minimum essential criteria to further validate/accept the bid. Vendor is requested to provide all the necessary supporting documents. If any deviation/non-compliances/lack of supporting document bid shall be summarily rejected.

Sl. No	Description	Vendor Compliance With Supporting Documents
1	The Bidder should be a Company/Society/Firm registered in India since last 5 (five) years or more. Company Profile along with documentary evidence of services offered and all relevant enclosures.	
2	Party should have executed a contract in the last five years ending with 31.03.2022 involving Design, Fabrication, Inspection, testing and Supply of GN2 Receivers & Compressed Air Receivers of the capacities in the range of 1 to 5 m3 for a value not less than Rs. 100 Lakhs as a single order (or) atleast two orders of worth Rs. 80 lakhs each (or) at least three orders of worth Rs.50 Lakhs each.	
3	The bidder should have average annual turnover of Rs.80 lakhs on an average in 3 years (Financial year FY 2019-20 & FY 2020-21 & FY 2021-22) in the design, supply of materials, fabrication, inspection, testing and supply of GN2 Receivers & Compressed Air Receivers.	
4	POs and Satisfactory Work completion certificate by the end user for the previous executed orders shall be submitted without which offer will not be considered.	
5	Audited balance sheet & Profit & Loss A/c is to be submitted (or) Copy of the IT return filed / audited last 3 years financial statements for Financial year FY 2019-20, FY 2020-21 & FY 2021-22.	
6	Vendor must undertake design, fabrication, inspection, testing and supply of GN2 Receivers & Compressed Air Receivers as per the specifications and requirements indicated in the RFP.	
7	Technical compliance to the specifications shall be vetted by the bidder.	
8	The firm must provide a self-declaration that there is no complaint/vigilance inquiry against them in any Govt. /Department /PSU and they have not been black listed by any Govt. Department/PSU.	
9	The supplier shall mention his welding team details, equipment / machineries, facilities if any	

Note:

- Technical proposal of the bidder, which is not able to substantiate/satisfy the claims made by it with respect to the technical requirements laid down in this RFP, will be summarily rejected.
- Offers of those bidders taking full scope of the work design, fabrication, inspection, testing and supply of GN2 Receivers & Compressed Air Receivers as per the requirements indicated in the RFP only will be considered.

Signature of Authorized Person with Seal

IV. Evaluation Criteria. The broad guidelines for evaluation of Bids will be as follows:

Sl. No.	Description	Vendor Compliance
1	In respect of Two-Bid system, the technical Bids forwarded by the Bidders will be evaluated by the Department with reference to the technical specifications as mentioned in the RFP. The compliance of Technical Bids would be determined on the basis of the parameters specified in the RFP. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.	
2	During evaluation, SDSC SHAR may request Bidder for any clarification on the bid, additional documents.	
3	Bidder must provide the point-by-point compliance to the technical specifications along with deviations. The tender can be rejected if the deviations are not acceptable to the Department.	
4	Performance of Bidder on similar nature of works executed/ under execution shall be taken into consideration before selecting the Bidder for opening his price bid.	
5	The time schedule for completion is given in the Proposal document. Bidder is required to confirm the completion period unconditionally.	
6	SDSC SHAR reserves the right to reject any bid if technically/commercially not meeting the requirement/terms & conditions. Such decisions by the SDSC SHAR shall bear no liability whatsoever consequent upon such decision.	
7	Order can be split on individual L1 basis.	
8	If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the total price will be corrected. If there is a discrepancy between words and figures, the amount in words will prevail for calculation of price.	
9	As all the items within RFP are not inter dependent, splitting of the order/WORK is possible. Hence, bidder shall give acceptance for items wise supply/splitting of order.	
10	Department reserves the right to inspect the contractor shop floor/premises for evaluation, if required. After evaluating the contractor, decision of the Department is final.	

Signature of Authorized Person with Seal

I. Checklist to be filled by the Contractor

The contractor shall confirm the following points. With regard to agreement on the scope defined in the work contract specifications without which the order will not be considered.

Sl. No.	Description	Confirmation / Remarks	Deviations , If any
1	Offers shall be submitted in two parts 1) Techno-Commercial Bid, 2) Price bid		
2	Format as per 2.2 in Section-A filled and submitted		
3	Price details (Detailed Break-up) as per 2.3 Price bid format filled and submitted		
4	Proposal Document: As per General terms and condition, Section -A Clause A		
5	Preparation of bids: As per General terms and condition, Section-A Clause B		
6	Bid submission: As per General terms and condition, Section -A Clause C		
7	Bid evaluation: As per General terms and condition, Section-A Clause D		
8	Delivery period: As per General terms and condition, Section-A Clause E , point 1		
9	Taxes and Duties: As per General terms and condition, Section-A Clause E, Point 2		
10	Make in India: As per General terms and condition, Section-A Clause E , point 3		
11	Payment term: As per General terms and condition, Section-A Clause E , point 4		
12	Liquidated damages: As per General terms and condition, Section-A Clause E , point 5		
13	Warranty: As per General terms and condition, Section-A Clause E , point 6		
14	Performance bank guarantee: As per General terms and condition, Section-A, Clause E , point 7		
15	Security deposit: As per General terms and condition, Section-A Clause E , point 8		
16	Force majeure: As per General terms and condition, Section-A Clause E , point 9		
17	Secrecy: As per General terms and condition, Section-A Clause E , point 10		
18	Compliance with security requirements: As per General terms and condition, Section-A, Clause E , point 11		
19	Confidentiality and proprietary right protection: As per General terms and condition, Section-A, Clause E , point 12		
20	Terms & Conditions to bidder: As per General terms and condition, Section-A, Clause E , point 13		
21	Unit rates: As per General terms and condition, Section-A Clause E , point 14		
22	Surveillance Inspection by Department: As per General terms and condition, Section-A Clause E , point 15		

II. FORMAT TO BE FILLED BY THE BIDDER

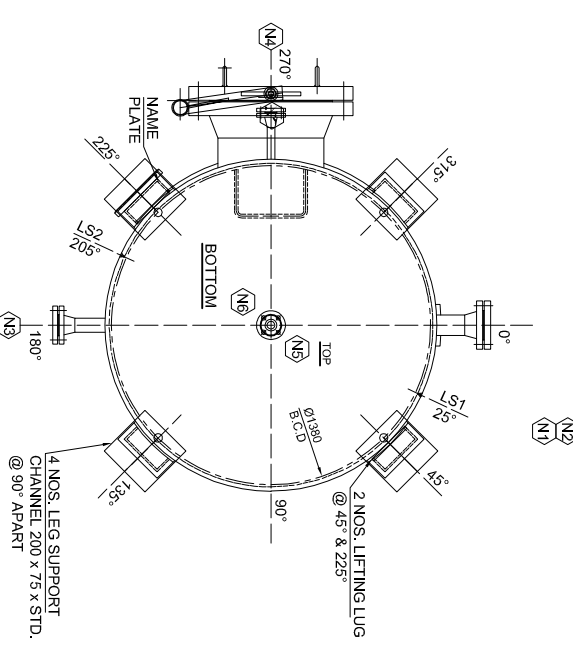
Sl. No.	Description	GN ₂ & Compressed Air Receivers	
		Compliance YES / NO	
1.	TECHNICAL SPECIFICATIONS: as per PART-I		
2.	SCOPE OF WORK as per Sl.no. 1.2		
Design Parameters for GN₂ Receiver : As per Sl.no 1.2			
	i. Type:	Vertical, cylindrical with 2:1 Ellipsoidal dished ends. 1m³ - 11 Nos	
	ii. Service Medium	Nitrogen gas	
	Operating Pressure	10 bar	
	Design pressure	12.5 bar	
	Operating Temperature	50 Deg .C	
	iii. Design standard	ASME SEC.VIII-DIV-1, Latest edition up to year 2004 (up to march)	
	iv. Testing		
	Hydro test Pressure	As per code	
	Pneumatic Leak Test	10 bar	
Design Parameters for Compressed Air Receiver : As per Sl.no 1.2			
	i. Type:	Vertical, cylindrical with dished ends. Capacity (water volume) 5m³- 3 nos.	
	ii. service Medium	Compressed Air	
	Operating Pressure	15 bar	
	Design pressure	20 bar	
	Operating Temperature	50 Deg. C	
	iii. Design standard	ASME SEC.VIII-DIV-1, Latest edition up to year 2004 (up to march).	
	iv. Testing		
	Hydro test Pressure	As per code.	
	Pneumatic Leak Test	6 bar	

Sl. No.	Description	GN ₂ & Compressed Air Receivers
		Compliance YES / NO
	v. Fabrication process	
	vi. Fabrication shall be taken up only after the approval from the third party/ purchaser.	
	vii. Material of Construction:	
	viii. Nozzles	
	ix. Earth boss	
	x. Name plate	
	xi. Lifting lugs	
	xii. Accessories required	
	xiii. Supporting legs	
	xiv. Third party inspection	
	xv. QAP	
	xvi. Stage inspection	
3.	Design pressures, Tank capacities, shell and Dome Thickness & Allowances and schedule of quantity: Service: GN ₂ & Compressed Air Receiver. As per sl.no 1.3	
4.	Welding as per sl.no. 1.4	
5.	Radiography as per sl.no. 1.5	
6.	Heat treatment as per sl.no. 1.6	
	i. Solution annealing	
	ii. Stress relieving	
7.	Testing as per sl.no1.7	
	a. Testing of materials	
	b. Hydraulic pressure test	
	i.Before Hydro test all the surfaces of the tanks shall be mechanically cleaned.	
	c.Pneumatic Leak Test	
8	Material of Construction as per Table-I, sl.no 1.8	
9	General conditions, PART-II	

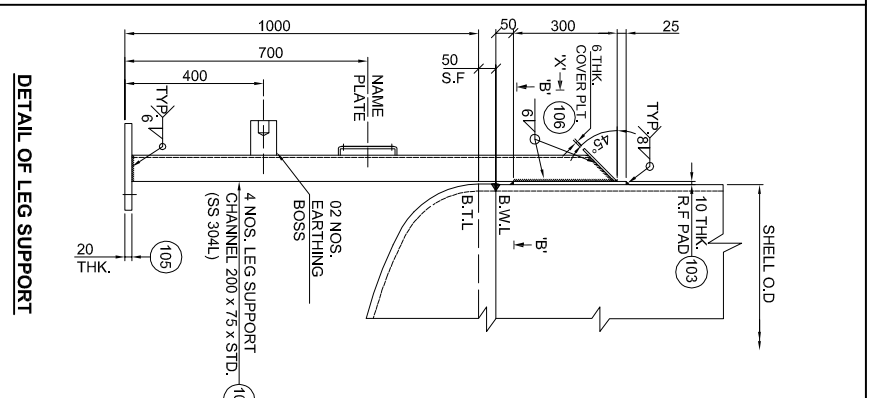
Sl. No.	Description	GN ₂ & Compressed Air Receivers
		Compliance YES / NO
10	Acceptance of QAP as per annexure -I	
11	Procedure for Mechanical cleaning, Degreasing Pickling, Passivation and Painting (Inner surface and outer surface) as per annexure -II	
12	Surface preparation & painting of epoxy primer Preferable manufactures: Berger/Bombay paints/CDC/GP	

2.3 Format to be filled signed and shall be uploaded by the supplier in techno-commercial bid:

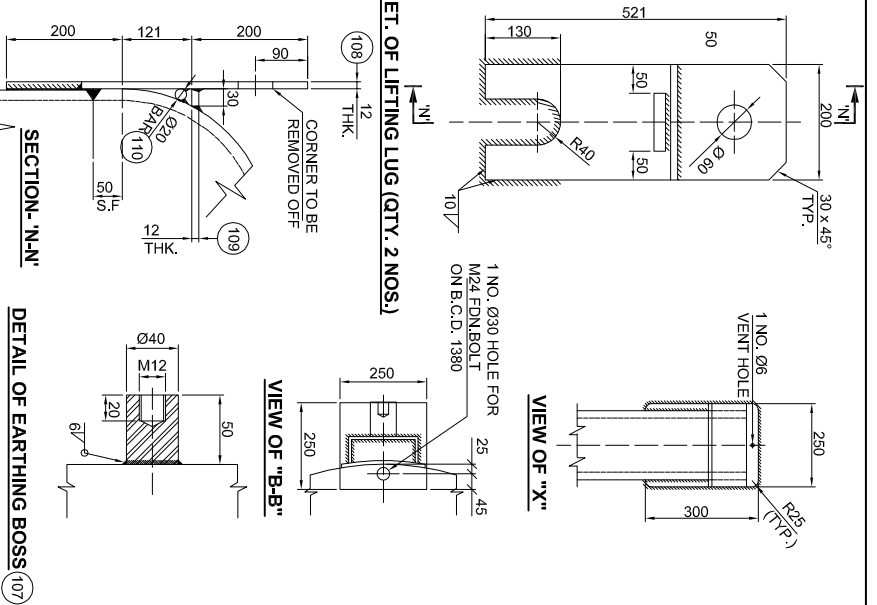
Sl. No.	Description	Yes/No
1	The scope of work is fully understood by the supplier	
2	Confirm all the specifications and terms & conditions are acceptable	
3	The individual item wise cost shall be quoted as per the Price bid format	
4	The details like taxes are considered or not	
5	Confirm the modality of execution of contract, terms, rules & regulations, general conditions of execution of contract is read and acceptable to all points. If any deviation, the same shall be highlighted.	
6	Bidder Qualification Criteria and Evaluation criteria formats duly filled and signed.	



NOZZLE ORIENTATION



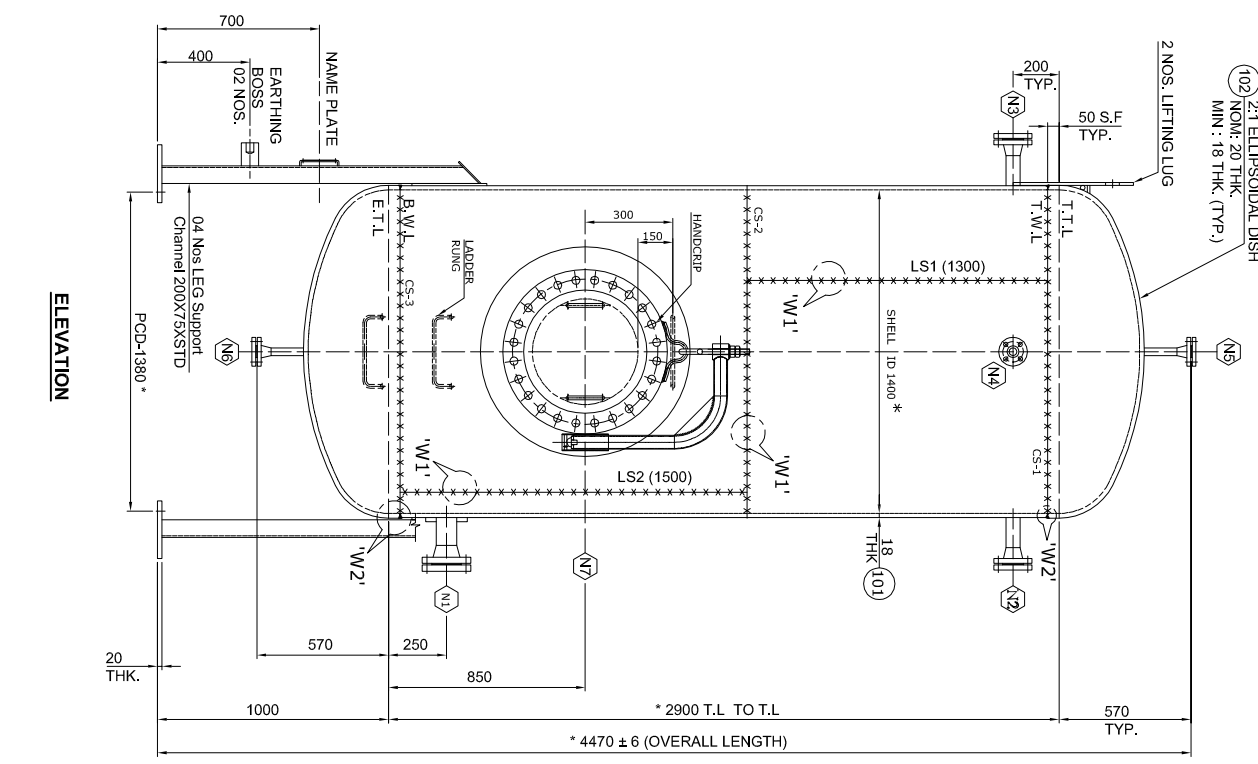
DETAIL OF LEG SUPPORT



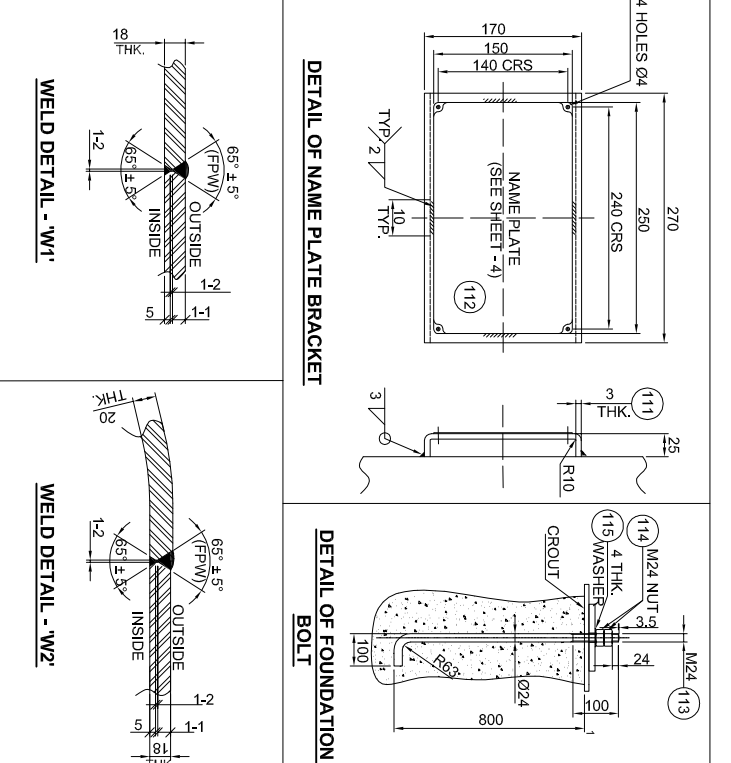
SECTION - N-N'

DETAIL OF EARTHING BOSS (107)

DESIGN DATA	
DESIGN CODE	ASME SEC. VIII DIV. -1, EDITION - 2013
TYPE	VERTICAL
OPERATING MEDIA	DRY COMPRESSED AIR (FOR BREATHING AIR PURPOSE)
CAPACITY	M3 5
DESIGN PRESSURE	bar (g) 20
DESIGN TEMPERATURE	°C 70
OPERATING PRESSURE	bar (g) 15
OPERATING TEMPERATURE	°C 50
HYDROTEST PRESSURE	bar (g) 28.3
PNEU. TEST AFTER HYDRO	bar (g) 6
RADIOGRAPHY	100% ON ALL BUTT JOINTS
JOINT EFFICIENCY	1
CORROSION ALLOWANCE	3
WIND SPEED SPECIFICATION	m/s 55
STRESS RELIEVING	YES, REFER NOTES 9&10
SEISMIC SPECIFICATION	ZONE 3/ AS PER IS 1893
WELDING PROCESS	100% BY TIG WITH ARGON PURGING
SURFACE FINISH	REFER NOTE: 17& 18
INSULATION	NA
QUANTITY	1 (ONE)
EMPTY WEIGHT	KGS 3345 (APPROX.)
TEST WEIGHT (FULL OF WATER)	KGS 8490 (APPROX.)



ELEVATION



WELD DETAIL - W1'

WELD DETAIL - W2'

NOZZ. MARK	QTY.	SERVICE	NOZZ. PROJ. SIZE	PIPE SCH./THK.	RATING	TYPE	FACE	STD	REMARK
N1	1	AIR INLET	Ø125	SCH.160	300#	WN	RF		WITH B.F.
N2	1	AIR OUTLET	Ø125	SCH.160	300#	WN	RF		WITH B.F.
N3	1	TEMP CONNECTION	Ø125	SCH.160	300#	WN	RF		WITH B.F.
N4	1	PIPET CONNECTION	Ø125	SCH.160	300#	WN	RF		WITH B.F.
N5	1	SERV CONNECTION	Ø125	SCH.160	300#	WN	RF		WITH B.F.
N6	1	DRAIN	Ø125	SCH.160	300#	WN	RF		WITH B.F.
N7	1	MANHOLE WITH COVER	Ø450	18 THK.	300#	WN	RF		WITH DAVIT

BILL OF MATERIAL (ONLY ONE EQUIPMENT)

ITEM NO.	QTY.	DESCRIPTION	SIZE	MATERIAL
101	1	SHELL	18THK, 44455 CHR26801 LG.	SA - 240 GR.304L
102	1	DISHEND (21 ELLIPSOIDAL)	20THK, 41740 BLANK DIA.	SA - 240 GR.304L
103	4	LEG SUPPORT PAD	10THK, 2250 W X 300 LG.	SA - 240 GR.304L
104	4	LEG SUPPORT CHANNEL	20075X STD. X 1380 LG.	SA - 240 GR.304L
105	4	LEG SUPPORT BASE PLT.	20THK, 2250 W X 280 LG.	SA - 240 GR.304L
106	4	LEG SUPPORT RAIN COVER	Ø130 W X 290 LG.	SA - 240 GR.304L
107	2	EARTHING BOSS	Ø40 x 90 LG.	SS 304L
108	2	LIFTING LUGS	12THK, x 200 W x 92 L LG.	SA - 240 GR.304L
109	2	SUPPORT PLATE	12THK, x 30 W x 200 LG.	SA - 240 GR.304L
110	2	SUPPORT BAR	Ø20 x 100 LG.	SA - 479 GR.304L
111	1	NAME PLATE BRACKET	3THK, x 270 W x 230 LG.	SA - 240 GR.304L
112	1	NAME PLATE	3THK, X NUMBERG STD.	SS 304L
113	4	BOLT FOR FOUNDATION	M24 X AS PER DWG	SA - 193 GR.8.8M
114	8	NUT FOR FOUNDATION	M24 X STD.	SA - 193 GR.8.8M
115	4	WASHER FOR FOUNDATION	4THK, X M24 X STD.	SA - 193 GR.8.8M

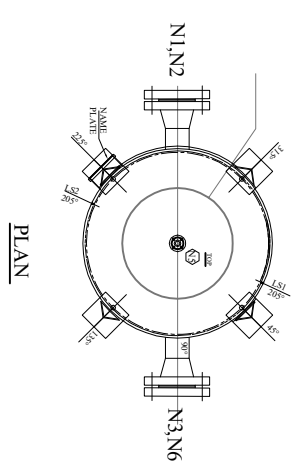
NOTES:-

- ALL DIMENSIONS ARE IN mm, UNLESS OTHERWISE SPECIFIED.
- ALL NOZZLES BOLT HOLES TO STRADDLE VESSEL MAIN AXIS UNLESS OTHERWISE SHOWN.
- WELDING SHALL BE DONE BY 100% TIG PROCESS WITH 99.99% PURE ARGON PURGING.
- ALL GASKETS ARE SPIRAL WOUND SS 304L FEPDM FILLED WITH INNER AND OUTER SS 304L CENTERING RING. DIMENSIONS OF GASKETS AS PER ANSI IN 16.20.
- ALL WELDING SURFACES THOROUGHLY CLEANED OF SCALE DUST ETC., BEFORE COMMENCING WELDING.
- ALL SHARP CORNERS SHALL BE ROUNDED OFF TO A SMOOTH RADIUS.
- DIMENSIONS OF FLANGES AS PER ANSI B-16.5 300# STANDARD.
- NO CARBON STEEL PARTS WELDED TO SS PARTS.
- DISHED ENDS AFTER FORMING SHALL BE SOLUTION ANNEALED (AS PER STANDARD PROCEDURE)
- SOLUTION ANNEALING CYCLE
LOADING TEMPERATURE : 300 C
SOAKING TEMPERATURE : 1040 C
SOAKING TIME : 50 MINUTES (MIN)
- COOLING : AS PER STANDARD PROCEDURE
- WELDING SHALL BE COMPLETELY STRESS RELIEVED FOR RELIEVING REMA STRESSES AFTER FABRICATIONS BUT BEFORE HYDROTTESTING, PNEUMATIC TESTING, PICKLING/PASSIVATION ETC., AS PER GIVEN CYCLE NO WELDING ON PRESSURE PART IS PERMITTED AFTER STRESS RELIEVING PROCESS COMPLETED.
- SOLUTION ANNEALING CYCLE (AS PER STANDARD PROCEDURE)
LOADING : 300 C
HEATING RATE (Max) : 100 C/Hr - 420 C
SOAKING TEMPERATURE : 420 C/Hr ± 15 C
SOAKING TIME : 2 Hours (AS PER STANDARD PROCEDURE)
COOLING RATE : 100 C/Hr (AS PER STANDARD PROCEDURE)
- ALL NOZZLE R.F. PADS ARE TO BE PROVIDED WITH 1 No. 3/4 NPT TELL HOLE & TESTED PNEUMATICALLY AT 1.25 kg/cm² (g) USING SOAP SUDS, BEFORE & AFTER HYDROTTEST.
- ALL NOZZLE PIPE TO FLANGE BUTT JOINTS SHALL ALSO BE 100% RADIOGRAPHED & D.P TESTED.
- GASKET CONTACT FACES OF ALL FLANGES SHALL HAVE A SURFACE FINISH OF 250 Ra (AARB)
- PLATES SHALL BE "UT" TESTED.
- ALL NOZZLE TO SHELL WELDS (ROOT + FINAL RUN) SHALL BE EXAMINED BY DP TEST.
- AFTER ALL INSPECTIONS AND TESTING, VESSEL SHALL BE DRIED WITH FIELD WYD DRY N2 GAS AT 0.5 % kg/50cm AFTER PROPERLY BLANKING. ALL NOZZLES WITH BLIND FLANGES
- PICKLING AND PASSIVATION SHALL BE CARRIED OUT INSIDE & OUTSIDE THE TANK AS PER "ANNEXURE-II" (PROCEDURE FOR PICKLING, PASSIVATION & PAINTING)
- PAINTING: AFTER PICKLING & PASSIVATION EXTERNAL SURFACES OF SS PARTS, PAINT SHALL BE APPLIED ON ALL EXTERNAL SURFACES WITH ONE COAT OF HIGH BUILD EPOXY PRIMER (120-130 MICRONS), ALIPHATIC POLYURETHANE PAINT (30-40 MICRONS).
- WHILE HYDROTTEST OF THE EQUIPMENT CAF GASKET SHALL BE USED, BEFORE DESPATCH OF THE EQUIPMENT
- SPIRAL WOUND GASKET SHOULD BE REPLACED ON EVERY NOZZLES.
- ABBREVIATIONS LEGEND
S8 1 S 1 : SHELL BELT 1 LONG, SEAM 1
- S.CS : SHELL CHG. SEAMS
- WELDING CONSUMABLES (FILLER WIRE) SHALL BE USED AS PER AWS SPECIFICATION, OR ER 308L.
- HYDRO TEST TO BE MADE AS PER ASME SEC. VIII DIV.1 WITH CLEAN POTABLE WATER WITH CHLORIDE CONTENT OF LESS THAN 25 PPM, SHALL BE USED FOR TESTING.
- ALL WELDS AND FLANGE JOINTS ARE TO BE TESTED AT 6.0 bar(g) USING DRY NITROGEN GAS AND LEAK CHECK WITH SOAP SOLUTION AFTER HYDRO TEST.
- LS & CS WELD SEAMS ARE TO BE SHOWN IN THE DRAWING IS TENTATIVE AND ACTUAL AT AVAILABILITY OF PLATE SIZE.
- (a) ALL NOZZLE ON SHELL PROJECTIONS ARE REFERRED FROM VESSEL CENTER LINE TO FLANGE CONTACT FACE.
- (b) ALL NOZZLE ON HEAD PROJECTIONS ARE REFERRED FROM HEAD T.L TO FLANGE CONTACT FACE.
- BILL OF MATERIAL IS TENTATIVE EXACT REQUIREMENT TO BE WORKED OUT AS PER DETAIL GIVEN IN DRAWING
- FERRITE NUMBER IN WELDMENT SHALL BE MEASURED BY TESTING AND THIS SHALL BE WITHIN THE SPECIFIED LIMIT OF 3% TO 12% TEST CERTIFICATES SHALL BE FURNISHED TO PURCHASER FOR APPROVAL
- PNEUMATIC LEAK TEST:
AFTER HYDROTTEST THE TANK SHALL BE TESTED AT 6.0 bar(g) USING DRY NITROGEN GAS WITH DEW POINT OF MINUS 40 DEG.C OR BETTER AND LEAK CHECK WITH SOAP SOLUTION AT ALL WELDS AND FLANGED JOINTS.
- ALL THE PLATED PROPOSED TO BE USED FOR FABRICATION OF AIR RECEIVERS, SHALL BE SUBJECTED TO MECHANICAL, CHEMICAL AND IGC TESTS AS PER A-262 PRACTICE-E IN SPIRE OF AVAILABILITY OF MILL TEST CERTIFICATES AND 100% ULTRASONIC TESTING AS PER PRACTICE ASTM A-435.
- AS BUILT DIMENSIONS ARE SHOWN IN BRACKETS HAVING DIFFERENCE MORE THAN ± 3 mm AND OTHER CHANGES ARE ALSO SHOWN IN BRACKETS.

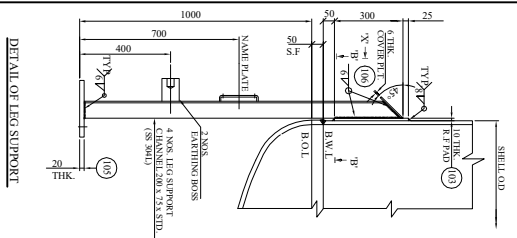
NOTE: * ALL DIMENSIONS ARE TENTATIVE (FOR REFERENCE ONLY) TO BE CONFIRMED DURING DESIGN APPROVAL

TITLE	COMPRESSED AIR RECEIVER (VERTICAL)
PROJECT	SCALE
NTS	DRAWING NO.
	SHEET REV
	1 0

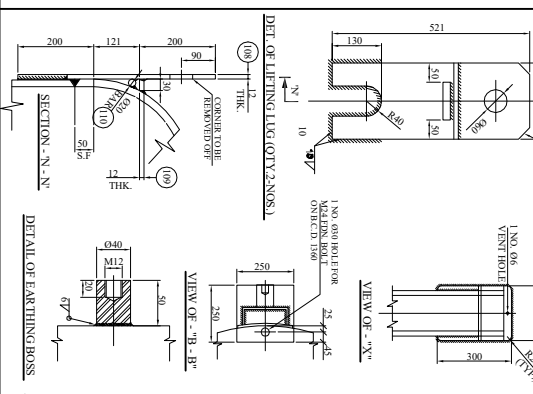
DRAWING NO.: SS/OMPF/CABA/CA RECEIVER/01



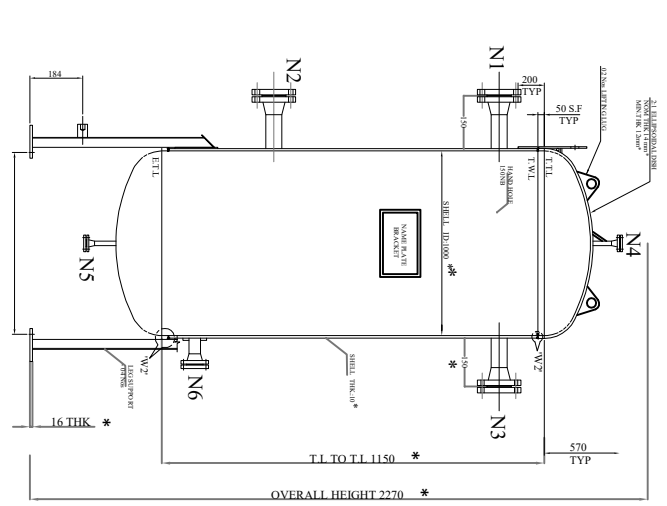
PLAN



DETAIL OF LEG SUPPORT

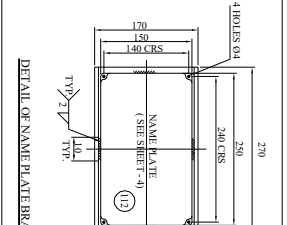


DETAIL OF EARTHING BOSS

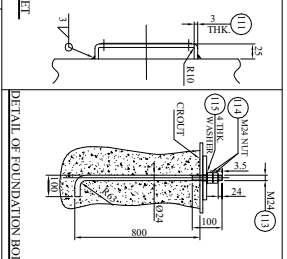


ELEVATION

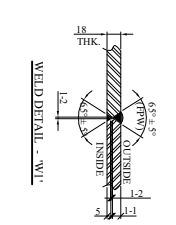
DESIGN DATA		ASME SECTION VIII PART 1	
DESIGN CODE	TYPE	VERTICAL	VERTICAL
OPERATING MEDIA	DESIGN TEMPERATURE	MDS	OTWOTUTMS
CAPACITY	DESIGN PRESSURE	bar g	bar g
OPERATING TEMPERATURE	OPERATING PRESSURE	°C	°C
HYDRO TEST PRESSURE	WIND SHEAR SPECIFICATION	bar g	bar g
HYDRO TEST AFTER HYDRO	PANEL TEST AFTER HYDRO	bar g	bar g
CONSTRUCTION ALL OVANGE	JOINT EFFICIENCY	%	%
WIND SHEAR SPECIFICATION	STRESS RELIEVING	YES	YES WITH STRESS & 90
SPRING SPECIFICATION	CORROSION ALLOWANCE	mm	mm
SURFACE FINISH	INSPECTION	mm	mm
STRENGTH FINISH	QUANTITY	mm	mm
TEST WEIGHT FILL OF	QUANTITY	Nos	Nos
WATER	TEST WEIGHT	Nos	Nos
	TEST WEIGHT FILL OF	Nos	Nos
	WATER	Nos	Nos



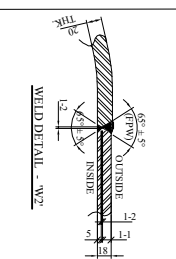
DETAIL OF NAME PLATE BRACKET



DETAIL OF FOUNDATION BOLT



WELD DETAIL - W1



WELD DETAIL - W2

NOZZLE QTY.	SERVICE	PIPE	FLANGE ASME B 16.5	NOZZLE	MANIAW			
NOZZLE QTY.	SIZE/NO	SIZE/NO	RAING	TYPE	R/CAL	STD.	NOZZLE	MANIAW
NOZZLE QTY.	SIZE/NO	SIZE/NO	RAING	TYPE	R/CAL	STD.	NOZZLE	MANIAW
NO1	CNS INLET	1500	SCHE 100	1500	NS	BF	WITH	WT
NO2	CNS OUTLET	1500	SCHE 100	1500	NS	BF	WITH	WT
NO3	P.F.T CONNECTION	1500	SCHE 100	1500	NS	BF	WITH	WT
NO4	S.V CONNECTION	2500	SCHE 100	1500	NS	BF	WITH	WT
NO5	P.F.T CONNECTION	1500	SCHE 100	1500	NS	BF	WITH	WT
NO6	P.F.T CONNECTION	1500	SCHE 100	1500	NS	BF	WITH	WT

BILL OF MATERIAL (ONLY ONE EQUIPMENT)		
ITEM NO.	DESCRIPTION	MATERIAL
001	1. SHELL	SA 308B 304
002	2. LEG SUPPORT TUB	SA 308B 304
003	3. LEG SUPPORT CHANNEL	SA 308B 304
004	4. LEG SUPPORT FLANGE RIT	SA 308B 304
005	5. EARTHING BOSS	SA 308B 304
006	6. EARTHING BROS	SA 308B 304
007	7. LIFTING LUG	SA 308B 304
008	8. SUPPORT PLATE	SA 308B 304
009	9. NAME PLATE BRACKET	SA 308B 304
010	10. NAME PLATE	SA 308B 304
011	11. NAME PLATE	SA 308B 304
012	12. HOFT FOR FOUNDATION	SA 308B 304
013	13. HOFT FOR FOUNDATION	SA 308B 304
014	14. HOFT FOR FOUNDATION	SA 308B 304
015	15. FOUNDATION BRACKET	SA 308B 304

NOTES:-

1. ALL DIMENSIONS ARE IN mm, UNLESS OTHERWISE SPECIFIED.
2. WELDING SHALL BE DONE BY 100% TIG PROCESS WITH 99.99% PURE ARGON FLOWING.
3. ALL GASSETS SHALL BE SERIAL WOUND TO 100% TIG PROCESS WITH 99.99% PURE ARGON FLOWING.
4. ALL WELDING SURFACES SHALL BE CLEANED BY 30% P.E.C.D. AFTER COMPLETION.
5. ALL WELDING SURFACES SHALL BE CLEANED BY 30% P.E.C.D. AFTER COMPLETION.
6. ALL SHARPER CORNERS SHALL BE ROUND TO A SMOOTH FINISH.
7. CARBON STEEL PARTS WELDED TO SS PARTS.
8. DISHED BUNS AFTER FORMING SHALL BE SOLUTION ANNEALED (AS PER STANDARD PROCEDURE).
9. SOLUTION ANNEALING PROCEDURE: 1400°C FOR 1 HR. COOLING TO 1000°C. AIR COOLING. SOAKING TIME: 30 MINUTES.
10. COOLING RATE: 1°C/MIN.
11. ALL NOZZLE R.F.PADS ARE TO BE PROVIDED WITH 1% NPT RIT HOLE & THERMOCOUPLE AT 1/2
12. ALL NOZZLE PIPE TO FLANGE BUT JOINTS SHALL ALSO BE 100% RADIOGRAPHED & D.P. TESTED.
13. GASSET CONTACT POINTS OF ALL FLANGES SHALL HAVE A SURFACE FINISH OF 250RA (MAX).
14. ALL NOZZLE TO SHELL WELDS (ROOT + 4mm) SHALL EXAMINED BY P.F.T.
15. AFTER ALL INSPECTIONS AND TESTING, VESSEL SHALL BE BRIBED WITH HELIUM DRY N2 GAS AT 0.5% P.F.T. CHECKING AND PASSIVATION SHALL BE CARRIED OUT INSIDE & OUTSIDE THE TANK AS PER 'ANNEALING' PROCEDURE.
16. AFTER PACKING & PASSIVATION, INTERNAL SURFACES OF 55 PARTS PAINT SHALL BE APPLIED ON ALL EXTERNAL SURFACES WITH ONE COAT OF HIGH HOLD PROXY BARRIER (200 GR/M) ALPHATIC 100% SOLID CONTENT WITH 90% SOLIDS CONTENT TO BE PROVIDED WITH 1% NPT RIT HOLE & THERMOCOUPLE AT 1/2.
17. ALL THERMOCOUPLE PORTS TO BE PROVIDED WITH 1% NPT RIT HOLE & THERMOCOUPLE AT 1/2.
18. ALL NOZZLE R.F.PADS ARE TO BE PROVIDED WITH 1% NPT RIT HOLE & THERMOCOUPLE AT 1/2.
19. COOLING RATE: 1°C/MIN.
20. SOAKING TIME: 30 MINUTES.
21. AIR COOLING.
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50. AIR COOLING.

- NOTE:- ALL DIMENSIONS ARE TENTATIVE TO BE CONFIRMED DURING DESIGN APPROVAL.
- PROJECT: GOVERNMENT OF INDIA DEPARTMENT OF SPACE SATISH DHAVAN SPACE CENTRE SHAR SRHARIKOTA

III. Bidder Minimum Qualification Criteria

The following are the minimum essential criteria to further validate/accept the bid. Vendor is requested to provide all the necessary supporting documents. If any deviation/non-compliances/lack of supporting document bid shall be summarily rejected.

Sl. No	Description	Vendor Compliance With Supporting Documents
1	The Bidder should be a Company/Society/Firm registered in India since last 5 (five) years or more. Company Profile along with documentary evidence of services offered and all relevant enclosures.	
2	Party should have executed a contract in the last five years ending with 31.03.2022 involving Design, Fabrication, Inspection, testing and Supply of GN2 Receivers & Compressed Air Receivers of the capacities in the range of 1 to 5 m3 for a value not less than Rs. 100 Lakhs as a single order (or) atleast two orders of worth Rs. 80 lakhs each (or) at least three orders of worth Rs.50 Lakhs each.	
3	The bidder should have average annual turnover of Rs.80 lakhs on an average in 3 years (Financial year FY 2019-20 & FY 2020-21 & FY 2021-22) in the design, supply of materials, fabrication, inspection, testing and supply of GN2 Receivers & Compressed Air Receivers.	
4	POs and Satisfactory Work completion certificate by the end user for the previous executed orders shall be submitted without which offer will not be considered.	
5	Audited balance sheet & Profit & Loss A/c is to be submitted (or) Copy of the IT return filed / audited last 3 years financial statements for Financial year FY 2019-20, FY 2020-21 & FY 2021-22.	
6	Vendor must undertake design, fabrication, inspection, testing and supply of GN2 Receivers & Compressed Air Receivers as per the specifications and requirements indicated in the RFP.	
7	Technical compliance to the specifications shall be vetted by the bidder.	
8	The firm must provide a self-declaration that there is no complaint/vigilance inquiry against them in any Govt. /Department /PSU and they have not been black listed by any Govt. Department/PSU.	
9	The supplier shall mention his welding team details, equipment / machineries, facilities if any	

Note:

- Technical proposal of the bidder, which is not able to substantiate/satisfy the claims made by it with respect to the technical requirements laid down in this RFP, will be summarily rejected.
- Offers of those bidders taking full scope of the work design, fabrication, inspection, testing and supply of GN2 Receivers & Compressed Air Receivers as per the requirements indicated in the RFP only will be considered.

Signature of Authorized Person with Seal

IV. Evaluation Criteria. The broad guidelines for evaluation of Bids will be as follows:

Sl. No.	Description	Vendor Compliance
1	In respect of Two-Bid system, the technical Bids forwarded by the Bidders will be evaluated by the Department with reference to the technical specifications as mentioned in the RFP. The compliance of Technical Bids would be determined on the basis of the parameters specified in the RFP. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.	
2	During evaluation, SDSC SHAR may request Bidder for any clarification on the bid, additional documents.	
3	Bidder must provide the point-by-point compliance to the technical specifications along with deviations. The tender can be rejected if the deviations are not acceptable to the Department.	
4	Performance of Bidder on similar nature of works executed/ under execution shall be taken into consideration before selecting the Bidder for opening his price bid.	
5	The time schedule for completion is given in the Proposal document. Bidder is required to confirm the completion period unconditionally.	
6	SDSC SHAR reserves the right to reject any bid if technically/commercially not meeting the requirement/terms & conditions. Such decisions by the SDSC SHAR shall bear no liability whatsoever consequent upon such decision.	
7	Order can be split on individual L1 basis.	
8	If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the total price will be corrected. If there is a discrepancy between words and figures, the amount in words will prevail for calculation of price.	
9	As all the items within RFP are not inter dependent, splitting of the order/WORK is possible. Hence, bidder shall give acceptance for items wise supply/splitting of order.	
10	Department reserves the right to inspect the contractor shop floor/premises for evaluation, if required. After evaluating the contractor, decision of the Department is final.	

Signature of Authorized Person with Seal