

भारत सरकार
अंतरिक्ष विभाग
सतीश धवन अंतरिक्ष केंद्र शार
श्रीहरिकोटा रेंज डा.घ. 524 124
श्री पोट्टि श्रीरामुलु नेल्लूर जिला, आं.प्र., भारत
दूरभाष : +91-8623 245060 (6 जं)
फैक्स : +91-8623 222099



Government of India
Department of Space
Satish Dhawan Space Centre SHAR
Shriharikota Range P.O. 524 124
SPSR Nellore Dist., AP, India
Telephone : +91-8623 245060 (6 Lines)
Fax : +91-8623 222099

निविदा सूचना सं. TENDER NOTICE NO. SDSC SHAR/Sr.HPS/PT/RO-LSSF/20/2025-2026

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. SI No	संदर्भ सं. Ref. No.	विवरण Description	मात्रा Qty.
01.	SDSC SHAR /LSSF PURCHASE/VALF/2025000875 New E-Procurement [Public Tender – Two Part]	Supply of Monel 400, ½ NPS, Sch160S Pipes	360 Meters

निविदा दस्तावेजों को डाउनलोड करने की अंतिम तिथि Last Date for downloading of tender documents : 02.09.2025 at 14:00 hrs.
ऑनलाइन निविदा जमा करने की अंतिम तिथि Due Date for submission of bids online : 02.09.2025 at 14:00 hrs.
निविदाएं खोलने की नियत तिथि Due Date for opening of tenders : 02.09.2025 at 14:05 hrs.

निविदाकार के लिए निर्देश Instructions to Tenderers:

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

- कार्य के सम्पूर्ण विवरण/जानकारी तथा नियम व शर्तों इत्यादि के लिए संलग्न अनुलम्बक 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-प्रोक्युरमेंट www.eproc.isro.gov.in से ई-निविदा डाउनलोड और अपनी निविदा ई-खरीद पोर्टल पर ऑनलाइन जमा कर सकते हैं। डाक / वाहक / स्वयं द्वारा प्राप्त निविदाओं पर विचार नहीं किया जाएगा। / Interested tenderers can download the e-tender from ISRO e-procurement website www.eproc.isro.gov.in and submit the offer on line in the e-procurement portal. Offers sent physically by post/courier/in person will not be considered.
- निविदा दस्तावेज इसरो की वेबसाइट www.isro.gov.in इसरो न्यू ई-प्रोक्युरमेंट वेबसाइट www.eproc.isro.gov.in तथा सतीश धवन अंतरिक्ष केंद्र शार की वेबसाइट www.shar.gov.in पर भी उपलब्ध हैं। इन्हें केवल ई-खरीद पोर्टल से डाउनलोड और निविदा ऑनलाइन जमा कर सकते हैं। / Tender documents are also available on ISRO website www.isro.gov.in, ISRO New e-procurement website www.eproc.isro.gov.in and SDSC SHAR, Sriharikota website www.shar.gov.in. The same can be down loaded and offer submitted on line in the new e-procurement portal only.
- निर्धारित तिथि/समय के पश्चात प्राप्त बोलियों पर विचार नहीं किया जाएगा। / Quotations received after the due date/time will not be considered.
- 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/23072025/471XJ3SUXX8P

दिनांक DT: 11.08.2025

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

TECHNICAL SPECIFICATIONS FOR SUPPLY OF SEAMLESS Monel 400 PIPES

I. Scope:

Scope involves manufacturing of Monel 400 Pipes by **Cold Pilgering**. All the Pipes have to be manufactured strictly in accordance with detailed technical Specifications of the indent.

Technical Specifications for manufacturing and supply of Monel 400Pipes

II. Pipe Specification

1	Manufacturing Process	:	Cold Pilgering Process
2	Material of construction	:	Monel 400
3	End Finish	:	Square cut, Smooth & deburred ends
4	Length	:	5 to 7 m
5	Straightness	:	Shall be ± 3 mm over a length of 3 m
6	Size	:	NPS ½", Sch160
7	Quantity	:	360 meters

III. Codes and Standards:

A Monel 400 Pipes:			
1.	Standard	:	ASTM B165
2.	Edge preparation	:	ANSI B 16.25
3.	Dimensional tolerance	:	ANSI B36.19
4.	Chemical Composition& Mechanical testing	:	ASTM B 165
5.	Ultrasonic testing of Pipes	:	ASTM E-213
6.	Hydro test of Pipes	:	ASTM B 165
7.	Average Grain size determination	:	ASTM E 112
8.	Annealing (Stress relieving)	:	ASTM B 165
9.	Cleaning of Pipes	:	ASTM G 93

IV. Manufacturing of Monel Pipes:

1. Manufacturing of Mother Hollows:

- a) All Mother hollows shall be manufactured by **HOT EXTRUSION PROCESS** only. **Hot pierced mother pipes are not acceptable.**

- b) The supplier has to produce **MIL certificates** for the mother hollows. In case of imported mother hollows from Other agencies, the supplier shall produce Air way/Cargo bill for raw material shipment (Original Cargo bill shall be produced for review). The same will be reviewed at the time of raw material inspection.
- c) The **Make of the Mother Hollows** shall be from the following suppliers only.

Indian Make Mother Hollows

- 1) M/s Sandvik Asia Ltd, India.
- 2) M/s Ratnamani Metals and Tubes, India
- 3) M/s Welspun Speciality Solutions, Gujarat.
- 4) M/s Nuclear Fuel Complex, Hyderabad.

Imported Mother Hollow Makes

- 1. M/s Nippon Steel & Sumitomo metal Corporation
 - 2. M/s KOBE Steel, Japan
 - 3. M/s POSCO (SeAH CCS), South Korea,
 - 4. M/s DK Corporation, Korea.
 - 5. M/s. Special metals wiggin Ltd. UK
- d) In case of any change of Indian make Mother hollows other than specified in the tender, Prior approval for the new make shall be obtained from SDSC SHAR. *Vendor evaluation will be carried out by purchaser for that particular offered Indian make Mother hollows (Raw material). Based on satisfactory evaluation of the new MAKE, only acceptance will be given.*
 - e) **In case of Imported mother hollows (Raw material), The Supplier has to comply to Ministry of steel BIS Steel Quality Control Policy (SQCP). The Total responsibility for getting the necessary clearances lies with the Supplier only.**
 - f) **If any new imported mother hollows (Raw material) other than specified in the tender, Prior approval for the new make shall be obtained from purchaser by submitting MIL test certificates and Companies profile for review and approval for further processing.**
 - g) Size of mother hollow/pipes selected for manufacture of finished pipes shall be minimum of **one order higher than the required pipe size and schedule**. Otherwise offer will not be considered. The supplier shall clearly specify the size of the mother hollow selected for each size of the finished pipe. **Deviations, if any shall be mentioned clearly.**

2. Manufacturing of Finished pipe:

- a) Manufacturer should have in-house cold pilgering facility for manufacturing of Monel pipes.
- b) **Hot extruded mother hollows/Pipes** shall be used for manufacturing of seamless pipes. **Hot pierced mother hollows are not acceptable.**
- c) All Pipes shall be manufactured by Cold pilgering process only.
- d) The Monel Pipe sample piece from each heat/Lot number (Sample Piece length:50 mm) shall be supplied to purchaser after cold pilgering process and before Heat treatment (Stress relieving process) to ensure the Cold pilgering manufacturing process of Pipes. The Sample shall be picked in presence of purchaser representative.
- e) All pipes shall be Stress relieved as per ASTM B165.
- f) Heat treatment (Stress relieving process) charts shall be submitted for purchaser & TPI for review and clearance.
- g) All pipes shall be visually examined for absence of scratches, dents, surface irregularities, etc.

V. Inspection and testing

All the tests shall be carried out in Government/NABL approved laboratory.

All the testing charges are inclusive of quoted price.

All the testing shall be carried out as specified in the Quality Assurance Plan and acceptance as per relevant code only.

1. Mother hollows testing:

- a) MIL certificates to be provided with chemical and mechanical tests for review.
- b) Detailed chemical analysis test and Mechanical testing like UTS, yield & percentage of elongation shall be carried out one per each heat/lot number during raw material inspection.

2. Finished pipes testing

- a) Detailed chemical analysis and Mechanical testing like UTS, yield & percentage of elongation shall be carried out one per each heat/lot number on finished Pipes.
- b) Average grain size shall be tested on finished product i.e. one sample from each size and heat or lot number as per ASTM E112.
- c) All the Pipes shall be hydrotested (100%).
- d) All the pipes shall be tested by Ultrasonic Test (100%).

- e) All pipes shall be cleaned as per ASTM G93 standard.
- f) Dimensional tolerance of the Pipes (i.e. ID, OD & wall thickness) shall comply to meet Code requirements
- g) All Test certificates shall be produced during inspection.
- h) Supplier has to inform the purchaser, the stage wise material readiness in advance at least 10 days for participating in inspection.
- i) Purchaser has the right to inspect the pipes at any stage during course of manufacturing.
- j) Supplier can offer Ultrasonic Test (100%) for witnessing as per the QAP Annexure-II either at Supplier's in-house facility or at any other facilities (Outsourcing) which is suitable for carrying out Ultrasonic Test for Monel 400, ½" NPS, Sch160S Pipes.

VI. Third party Inspection

- 1) Third Party Inspection (TPI) shall be engaged by the supplier. TPI can be DNV/LLOYDS/BVIS/TUV. Scope of Third-Party Inspection is as per QAP given in **Annexure-II**.
- 2) The cost of TPI shall be exclusive of quoted price. The Scope of TPI is given in QAP as given in Annexure-II. Cost of TPI for witness of Cold pilgering process shall be mentioned separately in price bid format.
- 3) Party shall mention the name of the TPI considered.
- 4) If the party is executing any of the TPI agencies other than mentioned shall be agreed/approved by the purchaser.
- 5) Any Deviations with respect to Scope of TPI inspection given in QAP shall be brought out clearly, if any.
- 6) Purchaser representative as well as TPI will carry out inspection as per QAP given in Annexure-II. Material shall be cleared by both department Engineer & TPI.

VII. Dispatch & Delivery

- 1) Pipes shall be cleaned and dried before dispatch. Ends shall be protected with suitable plastic caps to avoid entry of dust, water and foreign materials during storage and transportation.
- 2) **Allowable Variation in quantity:** One Length of Pipe on total quantity.
- 3) **Supplier shall deliver all the ordered items within 08 (Eight) months from the date of release of Purchase order.**
- 4) **Packing:** Material shall be wrapped in polythene sheet and packed in a wooden box as seaworthy package.
- 5) **MARKING:** All pipes shall be clearly marked on three places on each pipe indicating manufacturer's reference, material grade, dimensions (Pipe size & Schedule), Heat/ Lot number. The template shall be sent for purchaser's approval before marking.
- 6) Supplier shall obtain dispatch clearance from the purchaser for the items inspected. Stage wise internal inspection certificates & TPI certificates (as applicable) shall be submitted.
- 7) All pipes shall be visually examined for absence of scratches, dents, surface irregularities, etc.

VIII. Documentation

- 1) Test certificate for chemical analysis, mechanical tests, UT test and Hydrostatic tests shall be supplied along with dispatch documents.
- 2) **Production of master file:** Three hard copies of production master file shall be supplied along with digital copy (DVDs containing Scanned copies) which contain the following.
 - ✓ Dimensional and visual check reports
 - ✓ Raw material test certificates.
 - ✓ Finished product Mechanical, Chemical and micro structure examination test reports.
 - ✓ Hydro test reports.
 - ✓ Ultrasonic test reports.
 - ✓ Heat treatment (Stress relieving) charts.
 - ✓ Cleaning as per ASTM G93 standard.
 - ✓ All the above reports / test results shall be bound neatly.

IX. GENERAL CONDITIONS

- 1) **Manufacturers of Monel pipes only shall submit the quote. Offers from dealers & Traders are not acceptable.**
- 2) **Compliance: Point wise compliance** to the tender specifications shall be submitted and any deviation from the specification shall be highlighted clearly in the offer. Technical compliance duly filled by the party as per **Annexure-III** to be submitted along with the offer.
- 3) **Pricing:** Price quoted is inclusive of all the testing charges (i.e. Chemical, mechanical, ultrasonic testing, hydro testing and Cleaning of Pipes for oxygen service).
- 4) **Warranty:** The Pipes supplied shall be warranted for trouble free service of 12 months period from the date of receipt and acceptance at purchaser's premises.
- 5) Party shall provide the list of equipment required for manufacturing of Monel pipes. Non submission of proof of equipment shall lead to technical disqualification.

X. Make in India (MII) Clause:

- 1) 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:
- 2) 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).
- 3) 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.
- 4) 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.

5) Verification of local content

- a. 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.
- b. 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.
- c. 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.
- d. A supplier who has been debarred by any procuring entry 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.
- 6) The percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected.
- 7) Preference will be given to Class-I Local supplier and in their absence, Class-II Local supplier will be considered.

1. Bid/Offer Submission details:

a) Supplier shall present the bids on Two-part basis as highlighted below:

- ✓ **Part-I: Techno-Commercial bid**
- ✓ **Part-II: Price bid.**

Part-I: Techno-Commercial bid:

The tenderer shall necessarily submit the following in the techno-commercial bid:

- The tenderer shall furnish **point-wise confirmation (Technical Compliance attached in Annexure-III)** for the technical specifications given in the enquiry. However, change of specifications/ deviations (if any) shall be brought out in the offer with detailed justification. Tenderer are expected to furnish quotations with best match to standards, materials of construction and other technical conditions
- The tenderer shall necessarily furnish the details of previously executed orders of **Monel pipes**. Necessary documentary evidence shall be submitted along with offer as a mandatory requirement. **Non-compliance of this requirement shall lead to rejection of the offer.**
- Tenderer need to furnish the details related to commercial terms indicating payment terms, details of bank guarantee in case of advance payments & name of Third-Party Inspection Agency proposed etc.
- Bidder need to submit unpriced price bid copy (as highlighted below) indicating the description of all the cost elements considered, without indicating the price. Tenderer shall note that indication of price in the techno-commercial bid shall lead to dis-qualification of bid.
- The price bids will be opened only after evaluation and acceptance of the technical bid of the respective tenderer.

✓ **Format of Un-Priced Price Bid:**

Sl. No	Item Description	Quantity (Mtrs)	Cost/ Meter (Rs)	Total Cost (Rs)	Separate Cost mentioned in price bid (YES/NO)
1.	NPS½", Sch160, Monel 400	360	Un-priced	Un-priced	

Part-II: Price bid indicating the price (To be uploaded along with commercial bid):

Price bid should be submitted by the tenderer in the following format with price break up.

Sl. No	Item Description	Quantity (Mtrs)	Cost/ Meter (Rs)	Total Cost (Rs)
1.	NPS½", Sch160, Monel 400 (Inclusive of packing and transportation charges, if any)	360		
2.	TPI Charges as per Quality Assurance plan (QAP) [Inclusive of Cold pilgering]			
3.	TPI Charges only for Cold pilgering process witness			
4.	Taxes (as applicable), if any			

Bid Evaluation criteria: Total Landed cost at SDSC SHAR for item (Basic Cost of item (Inclusive of packing Charges + Transportation Charges, if any) + TPI charges (including cold pilgering) / TPI charges (Exclusive of cold pilgering) + taxes applicable) will be the basis for evaluation of offer.

2. Offer Validity:

The validity of the offers / tenders should be 120 days from the date of opening of the tenders. **Tenders with offer validity less than the period mentioned above, will not be considered for evaluation.**

3. Taxes and Duties:

a. GST details are given below:

GSTIN: 37AAAGS1366J1Z1

LEGAL NAME: SATISH DHAWAN SPACE CENTRE SHAR

VALIDITY FROM : 29/08/2017

TYPE OF REGISTRATION: REGULAR

4. Payment Terms:

Option-1:

100% payment within 30 days after receipt and acceptance of items at purchaser's (SDSC-SHAR, Sriharikota) site.

Option-2:

- a) 20% of order value as advance against submission of Advance Bank Guarantee.
- b) 60% of order value against receipt and acceptance of items at SDSC SHAR based on the cost of each individual item on PRO-RATA basis within 30 days.
- c) Balance 20% of order value after supplying of all the items at SHAR and against submission of Performance Bank Guarantee.

Note: Supplier shall clearly indicate the quoted payment term (i.e. Option-1 or Option-2) in the techno-commercial bid.

- d) 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.
- e) 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.

5. Minimum Qualification criteria:

- a. **Manufacturers of Monel pipes only shall submit the quote. Offers from dealers & Traders are not acceptable.**
- b. Tenderers should have satisfactorily executed the following Seamless Monel Pipe manufacturing during the last 5 years.
 - Single order of value not less than Rs. 38 Lakhs. (or)
 - Two orders of value not less than Rs. 28 Lakhs each. (or)
 - Three orders of value not less than Rs.20 Lakhs each.
 - Details of the last five years purchase orders shall be submitted along with offer
- c. Tenderers should have average annual turnover for the last three years (FY: 2022-23, 2023-24& 2024-25) of Rs.58 Lakhs.
- d. The Bidders shall submit Profit & Loss Accounts, Balance Sheets duly certified by the auditor and IT returns for the last three financial years with acknowledgement from IT Department up to last 3 years (ending with 31-03-2025). Necessary documents shall be submitted.
- e. Latest Solvency certificate from any Nationalized/Scheduled bank shall be submitted for a value of minimum Rs.20 Lakhs. The Solvency certificate must have been issued during current financial year.
- f. 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.
- g. 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 tender document, will be summarily rejected.

6. Bid Evaluation criteria:

- a. 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. The compliance of Technical Bids would be determined on the basis of the parameters specified in the tender document. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.

- b. During evaluation, SDSC SHAR may request Bidder for any additional clarification/document on the bid, if required.
- c. Performance of Bidder on similar nature of works executed/ under execution will be taken into consideration before selecting the Bidder for opening his price bid (as per qualification criteria).
- d. SDSC SHAR reserves the right to reject any bid if not meeting the technical/commercial requirements and terms & conditions. Such decisions by the SDSC SHAR shall bear no liability whatsoever consequent upon such decision.
- e. Purchaser reserves the right for evaluation of any bidder by visiting his manufacturing premises towards acceptance of the techno-commercial bid. The decision of the purchaser is final in this regard.
- f. The purchaser has right to cancel the order at any stage, if the supplier is not meeting the specifications and QAP.

7. Quality Assurance Plan (QAP)

Sl. No	Characteristics/ Type of check	Reference documents	Method of check	Supplier's QC	TPI Scope	Purchaser's Inspector
A Mother Hollow						
1.	Identification of raw material with MIL test certificates (Minimum one order high in size and schedule) per heat/lot.	-----	Raw material Identification and test certificates review.	H 100%	W 100%	R 100%
2.	Chemical and Mechanical test reports for production (Parent material/mother hollows check) @	-----	TC review of parent material	H 100%	R 100%	R 100%
B PipeManufacturing						
3.	Verification of cold pilgering process	As per PO Specifications	Witnessing	H 100%	W 100%	W 100%
4.	Verification of Heat Treatment (Stress relieving) process	As per PO Specifications	Witnessing	H 100%	W 100%	W/R 100%
C Finished Pipe						
5.	After final production Chemical analysis and Mechanical tests (One sample per each heat/lot) on selected samples.	As per ASTM B165	Review of material test certificates	H 100%	R 100%	R 100%
6.	Grain Size examination (one per each size and heat no)	As per ASTM E112	Verification	H 100%	R 100%	R 100%
7.	Ultrasonic testing of finished pipes.	As per ASTM E213	Witnessing	H 100%	W 100%	W 100%
8.	Rockwell Hardness test	As per ASTM E 18	Witnessing	H 100%	R 100%	W/R 10%

Tender Technical specifications for Supply of Monel Pipes

Sl. No	Characteristics/ Type of check	Reference documents	Method of check	Supplier's QC	TPI Scope	Purchaser's Inspector
9.	Hydro test	As per ASTM B165	Witnessing	H 100%	W 100%	W 10% (RN)
10.	Cleaning Pipes	As per ASTM G93	Witnessing	H 100%	W 100%	W/R 10% (RN)
11.	Visual & Dimensional check	As per ANSI B 36.19	Witnessing	H 100%	W 100%	W 10%(RN)

Legend: R – Review, RN – Randomly, W-Witnessing, H – Hold

@ Supplier has to procure the raw material with MIL certificate with traceability

Technical Compliance
(To be submitted by the bidder along with Technical Bid)

Tenderer shall furnish point-wise confirmation for the following. Change of specifications/ deviations (if any) shall be brought out in the offer with detailed justification.

Sl. No	ISRO Description		Technical Compliance (To be filled by the Manufacturer)
I.	Technical Specifications		
1.	Manufacturing process	Cold Pilgering	
2.	Material of construction for Pipes: Monel 400		
3.	End finish for tubes: Square cut, smooth & deburred ends		
4.	Length shall be 5 to 7 m		
5.	Straightness shall be ± 3 mm over a length of 3 m.		
6.	Compliance of the supplier on the given size of the Pipe and quantity as per the Table shall be provided. If any change shall be brought out.		
	Sl. No	Pipe Specification	Quantity (Mtrs)
	1.	NPS ½", Sch160, Monel 400	360
7.	Codes and standards		
	Standard		ASTM B 165
	Edge preparation		ANSI B 16.25
	Dimensional tolerance		ANSI B36.19
	Chemical Composition & Mechanical testing		ASTM B 165
	Ultrasonic testing of Pipes		ASTM E-213
	Hydro test of Pipes		ASTM B 165
	Average Grain size determination		ASTM E 112
	Annealing (Stress relieving)		ASTM B 165
	Cleaning of Pipes		ASTM G 93
8.	<u>Manufacturing of Mother Hollows:</u> All Mother hollows shall be manufactured by HOT EXTRUSION PROCESS only . Hot pierced mother pipes are not acceptable.		
9.	The supplier has to produce MIL certificates for the mother hollows. In case of imported mother hollows from Other agencies, the supplier shall produce		

Sl. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
	Airway/Cargo bill for raw material shipment (Original Cargo bill shall be produced for review). The same will be reviewed at the time of raw material inspection.	
10.	Make of the Mother Hollows shall be from the following suppliers only. Indian Make Mother Hollows 1) M/s Sandvik Asia Ltd, India. 2) M/s Ratnamani Metals and Tubes, India 3) M/s Welspun Speciality Solutions, Gujarat. 4) M/s Nuclear Fuel Complex, Hyderabad. Imported Mother Hollow Makes 1) M/s Nippon Steel & Sumitomo metal Corporation 2) M/s KOBE Steel, Japan 3) M/s POSCO (SeAH CCS), South Korea, 4) M/s DK Corporation, Korea. 5) M/s. Special Metal Wiggin Ltd. UK	
11.	In case of any change of <u>Indian make Mother hollows</u> other than specified in the tender, Prior approval for the new make shall be obtained from SDSC SHAR. <i>Vendor evaluation will be carried out by purchaser for that particular offered Indian make Mother hollows (Raw material). Based on satisfactory evaluation of the new MAKE, only acceptance will be given.</i>	
12.	In case of Imported mother hollows (Raw material), The Supplier has to comply to Ministry of steel BIS Steel Quality Control Policy (SQCP). The Total responsibility for getting the necessary clearances lies with the Supplier only.	
13.	If any new imported mother hollows (Raw material) other than specified in the tender, Prior approval for the new make shall be obtained from purchaser by submitting MIL test certificates and Companies profile for review and approval for further processing.	
14.	Size of mother hollow/pipes selected for manufacture of finished pipes shall be minimum of one order higher than the required pipe size and schedule . Otherwise offer will not be considered. The supplier shall clearly specify the size of the mother hollow	

Sl. No	ISRO Description				Technical Compliance (To be filled by the Manufacturer)
	selected for each size of the finished pipe. Deviations, if any shall be mentioned clearly.				
	Sl. No	Pipe Specification	Pipe OD &Thk	Size of Mother Hollow selected	
	1.	NPS½”, Sch160, Monel 400			
15.	Manufacturer should have in-house cold pilgering facility for manufacturing of Monel pipes.				
16.	Hot extruded mother hollows/Pipes shall be used for manufacturing of seamless pipes. Hot pierced mother hollows are not acceptable.				
17.	All Pipes shall be manufactured by Cold pilgering process only.				
18.	The Monel Pipe sample piece from each heat/Lot number (Sample Piece length:50 mm) shall be supplied to purchaser after cold pilgering process and before Heat treatment (Stress relieving process) to ensure the Cold pilgering manufacturing process of Pipes. The Sample shall be picked in presence of purchaser representative.				
19.	All pipes shall be Stress relieved as per ASTM B165.				
20.	Heat treatment (Stress relieving process) charts shall be submitted for purchaser & TPI for review and clearance.				
21.	All pipes shall be visually examined for absence of scratches, dents, surface irregularities, etc.				
22.	Inspection &Testing:				
23.	All the tests shall be carried out in Government/NABL approved laboratory. All the testing charges are inclusive of quoted price.				
24.	Mother hollows testing: a) MIL certificates to be provided with chemical and mechanical tests for review. b) Detailed chemical analysis test and Mechanical testing like UTS, yield & percentage of elongation shall be carried out one per each heat/lot number during raw material inspection.				

Sl. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
25.	Finished pipes testing a) Detailed chemical analysis and Mechanical testing like UTS, yield & percentage of elongation shall be carried out one per each heat/lot number on finished Pipes. b) Average grain size shall be tested on finished product i.e. one sample from each size and heat or lot number as per ASTM E112. c) All the Pipes shall be hydrotested (100%). d) All the pipes shall be tested by Ultrasonic Test (100%). e) All pipes shall be cleaned as per ASTM G93 standard. f) Dimensional tolerance of the Pipes (i.e. ID, OD & wall thickness) shall comply to meet Code requirements g) All Test certificates shall be produced during inspection. h) Supplier has to inform the purchaser, the stage wise material readiness in advance at least 10 days for participating in inspection. i) Purchaser has the right to inspect the pipes at any stage during course of manufacturing. j) Supplier can offer Ultrasonic Test (100%) for witnessing as per the QAP Annexure-II either at Supplier's in-house facility or at any other facilities (Outsourcing) which is suitable for carrying out Ultrasonic Test for Monel 400, ½" NPS, Sch160S Pipes.	
26.	Third party Inspection:	
27.	Third Party Inspection (TPI) shall be engaged by the supplier. TPI can be DNV/LLOYDS/BVIS/TUV. Scope of Third-Party Inspection is as per QAP given in Annexure-II .	
28.	The cost of TPI shall be exclusive of quoted price. The Scope of TPI is given in QAP as given in Annexure-II. Cost of TPI for witness of Cold pilgering process shall be mentioned separately in price bid format.	
29.	Party shall mention the name of the TPI considered.	

Sl. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
30.	If the party is executing any of the TPI agencies other than mentioned shall be agreed/approved by the purchaser.	
31.	Any Deviations with respect to Scope of TPI inspection given in QAP shall be brought out clearly, if any.	
32.	Purchaser representative as well as TPI will carry out inspection as per QAP given in Annexure-II. Material shall be cleared by both department Engineer & TPI.	
33.	Dispatch & Delivery:	
34.	Pipes shall be cleaned and dried before dispatch. Ends shall be protected with suitable plastic caps to avoid entry of dust, water and foreign materials during storage and transportation.	
35.	Allowable Variation in quantity: One Length of Pipe on total quantity.	
36.	Supplier shall deliver all the ordered items within 08 (Eight) months from the date of release of Purchase order.	
37.	Packing: Material shall be wrapped in polythene sheet and packed in a wooden box as seaworthy package.	
38.	MARKING: All pipes shall be clearly marked on three places on each pipe indicating manufacturer's reference, material grade, dimensions (Pipe size & Schedule), Heat/ Lot number. The template shall be sent for purchaser's approval before marking.	
39.	Supplier shall obtain dispatch clearance from the purchaser for the items inspected. Stage wise internal inspection certificates & TPI certificates (as applicable) shall be submitted.	
40.	All pipes shall be visually examined for absence of scratches, dents, surface irregularities, etc.	
41.	Documentation:	
42.	Test certificate for chemical analysis, mechanical tests, UT test and Hydrostatic tests shall be supplied along with dispatch documents.	
43.	Production of master file: Three hard copies of production master file shall be supplied along with digital copy (DVDs containing Scanned copies) which contain the following.	

Sl. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
	✓ Dimensional and visual check reports ✓ Raw material test certificates. ✓ Finished product Mechanical, Chemical and micro structure examination test reports. ✓ Hydro test reports. ✓ Ultrasonic test reports. ✓ Heat treatment (Stress relieving) charts. ✓ Cleaning as per ASTM G93 standard. ✓ All the above reports / test results shall be bound neatly.	
44.	GENERAL CONDITIONS	
45.	Manufacturers of Monel pipes only shall submit the quote. Offers from dealers & Traders are not acceptable.	
46.	Compliance: Point wise compliance to the tender specifications shall be submitted and any deviation from the specification shall be highlighted clearly in the offer. Technical compliance duly filled by the party as per Annexure-III to be submitted along with the offer.	
47.	Pricing: Price quoted is inclusive of all the testing charges (i.e. Chemical, mechanical, ultrasonic testing, hydro testing and Cleaning of Pipes for oxygen service.	
48.	Warranty: The Pipes supplied shall be warranted for trouble free service of 12 months period from the date of receipt and acceptance at purchaser's premises.	
49.	Party shall provide the list of equipment required for manufacturing of Monel pipes. Non-submission of proof of equipment shall lead to technical disqualification.	
50.	Manufacturers of Monel pipes only shall submit the quote. Offers from dealers & Traders are not acceptable.	
51.	Compliance: Point wise compliance to the tender specifications shall be submitted and any deviation from the specification shall be highlighted clearly in the offer. Technical compliance duly filled by the party as per Annexure-III to be submitted along with the offer.	
52.	Pricing: Price quoted is inclusive of all the testing charges (i.e. Chemical, mechanical, ultrasonic testing, hydro testing and Cleaning of Pipes for oxygen service.	

Sl. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
53.	Make In India (MII) Clause	
54.	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	
55.	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).	
56.	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.	
57.	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.	
58.	Verification of local content	
59.	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	
60.	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	

Sl. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
	chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.	
61.	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.	
62.	A supplier who has been debarred by any procuring entry 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.	
63.	Percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected.	
64.	Preference will be given to Class-I Local supplier and in their absence, Class-II Local supplier will be considered.	
65.	Note: The purchaser has right to cancel the order at any stage, if the supplier is not meeting the specifications and QAP	
66.	Payment terms:	
67.	Option-1: 100% payment within 30 days after receipt and acceptance of items at purchaser's (SDSC-SHAR, Sriharikota) site. Option-2: a) 20% of order value as advance against submission of Advance Bank Guarantee. b) 60% of order value against receipt and acceptance of items at SDSC SHAR based on the cost of each individual item on PRO-RATA basis within 30 days. c) Balance 20% of order value after supplying of all the items at SHAR and against submission of Performance Bank Guarantee. Note: Supplier shall clearly indicate the quoted payment term (i.e. Option-1 or Option-2) in the techno-commercial bid.	

Sl. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
68.	Part-I: Techno-Commercial bid	
69.	The tenderer shall furnish <u>point-wise confirmation (Technical Compliance attached in Annexure-III)</u> for the technical specifications given in the enquiry. However, change of specifications/ deviations (if any) shall be brought out in the offer with detailed justification. Tenderer are expected to furnish quotations with best match to standards, materials of construction and other technical conditions.	
70.	The tenderer shall necessarily furnish the details of previously executed orders of Monel pipes. Necessary documentary evidence shall be submitted along with offer as a mandatory requirement. Non-compliance of this requirement shall lead to rejection of the offer.	
71.	Tenderer need to furnish the details related to commercial terms indicating payment terms, details of bank guarantee in case of advance payments & name of Third-Party Inspection Agency proposed etc.	
72.	Bidder need to submit unpriced price bid copy (as highlighted below) indicating the description of all the cost elements considered, without indicating the price. Tenderer shall note that indication of price in the techno-commercial bid shall lead to dis-qualification of bid.	
73.	Minimum Qualification criteria:	
74.	Manufacturers of Monel pipes only shall submit the quote. Offers from dealers & Traders are not acceptable. Tenderers should have satisfactorily executed the following Seamless Monel Pipe manufacturing during the last 5 years. ▪ Single order of value not less than Rs. 38 Lakhs. (or) ▪ Two orders of value not less than Rs. 28 Lakhs each. (or) ▪ Three orders of value not less than Rs.20 Lakhs each. ▪ Details of the last five years purchase orders shall be submitted along with offer	

Sl. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
75.	Tenderers should have average annual turnover for the last three years (FY: 2022-23, 2023-24 & 2024-25) of Rs.58 Lakhs.	
76.	The Bidders shall submit Profit & Loss Accounts, Balance Sheets duly certified by the auditor and IT returns for the last three financial years with acknowledgement from IT Department up to last 3 years (ending with 31-03-2025). Necessary documents shall be submitted.	
77.	Latest Solvency certificate from any Nationalized/Scheduled bank shall be submitted for a value of minimum Rs.20 Lakhs. The Solvency certificate must have been issued during current financial year.	
78.	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.	
79.	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 tender document, will be summarily rejected.	
80.	Bid Evaluation criteria:	
81.	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. The compliance of Technical Bids would be determined on the basis of the parameters specified in the tender document. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.	
82.	During evaluation, SDSC SHAR may request Bidder for any additional clarification/document on the bid, if required.	
83.	Performance of Bidder on similar nature of works executed/ under execution will be taken into consideration before selecting the Bidder for opening his price bid (as per qualification criteria).	
84.	SDSC SHAR reserves the right to reject any bid if not meeting the technical/commercial requirements and terms & conditions. Such decisions by the SDSC SHAR	

S1. No	ISRO Description	Technical Compliance (To be filled by the Manufacturer)
	shall bear no liability whatsoever consequent upon such decision.	
85.	Purchaser reserves the right for evaluation of any bidder by visiting his manufacturing premises towards acceptance of the techno-commercial bid. The decision of the purchaser is final in this regard.	
86.	The purchaser has right to cancel the order at any stage, if the supplier is not meeting the specifications and QAP.	