राष्ट्रीयसमुद्रप्रौद्योगिकीसंस्थान NATIONAL INSTITUTE OF OCEAN TECHNOLOGY	संविदा आमंत्रण सूचना(नि.आ.सू.) **NOTICE INVITING TENDER (NIT)**
	फ़ार्म संख्या: Form No. NIOT/S&P/NIT

GEM-Tender Schedule

निविदा संख्या/ Tender No.		**NIOT/S&P/DSM/25802/2025-26**
कोजारी Issued To		**Hydraulic Pack Unit (HPU) lid and Valve Pack Unit.**
निविदाप्रणाली/Tender Mode		**GEM – BoQ Bid**
बोली का प्रकार एवं निविदा प्रस्तुतिकरण Bidding Type & Tender submission		Single Part Tender comprising of Technical Bid and Price Bid should be submitted electronically through GeM portal https://gem.gov.in
विविदा प्रलेख उपलब्धता स्थानTender Documents available place		Bidders may download the help documents. Helpdesk number : Number: 1800-419-3436 E-Mail: helpdesk-gem@gov.in For any issues / clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority.
अपने प्रश्न ई मेल आईडी पर भेजें Send your queries to the email IDs	निविदा के अंतिम चरण तक/Upto Tender Finalisations	gopalakrishnaa.niot@gov.in ppgfollowup@niot.res.in

राष्ट्रीय समुद्र प्रौद्योगिकी संस्थान NATIONAL INSTITUTE OF OCEAN TECHNOLOGY
वेलचेरी ताम्बरम मेन रोड VELACHERY TAMBARAM MAIN ROAD
नारायण पुरम, चेन्नै 600 100 NARAYANPURAM, CHENNAI 600 100
रा.स.प्रौ.सं. वेबसाइट/NIOT Website : https://niot.res.in/conmgmt/signin.php

Commercial Terms Compliance sheet (The format should not be altered)

S. No.	Particulars	Yes	No	offer Page Ref
1	Whether every page of the tender document is signed for acceptance of tender and uploaded along with the offer?			
2	Whether Taxes and duties are shown separately in the quote. (Registration numbers for claiming the same to be strictly indicated)			
3	Whether accepted to submit the order acceptance within 7 days from the date of order?			
4	Whether Quote is valid for **90 days** from the due date of tender or time specified in the tender document whichever is later?			
5	Whether **payment terms** of the tender is complied with?			
6	Whether the bidder satisfies the Pre- qualification criteria			
	a. a copy of your GST Registration certificates and PAN details are attached (Mandatory qualifying condition)			
	b. Supplier should have previous experience in supply of similar items to recognized institutions. (Mandatory qualifying condition)			
7	**a. The Goods / items quoted are manufactured in India and not imported from any country.**			
	b. Make in India Clause: If the item/goods are partially imported, specify your category:			
	1. CLASS I Category: Supplier or service provider, whose goods, services or works offered for procurement, has local content greater than or equal to 50%.			
	2. CLASS II Category: Supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%.			
8	Whether self certification form is enclosed (For Class I & Class II supplier only)?			
9	Whether price is **FOR /DAP, NIOT Chennai**?			
10	Whether the freight cost is included, if not included whether the freight cost is indicated separately?			
11	Whether the **authorization letter** exclusively for this tender, from the original manufacturer is enclosed?			
12	a) Whether **warranty** period accepted as per tender?			
	b) Whether submission of **warranty** certificate in the prescribed format is acceptable?			
13	Whether the **delivery period** is clearly indicated, and is as per tender?			
14	Whether the cost of installation / inspection / testing explicitly mentioned in the quote?			
15	Whether Past track record of quality and service is enclosed?			
16	Whether list of deliverables attached and comply as per tender?			
17	Whether liquidated damage clause is acceptable in case of delayed supply?			
18	Whether the tender is fully complying with tender specification/Adjustment if no, list out deviations very clearly along with the appropriate reason for the deviation?			
19	Whether item-wise price is quoted as per price bid and quoted price is realistic?			
20	Whether technical specification has been duly filled in and submitted with the tender document is uploaded along with the quotation.			
21	Whether HSN code of the product has been indicated?			
22	**Whether your firm is registered under MSME/ NSIC/DIC/UAM? If yes enclose copy of registration**			

PRICE BID FORMAT

S.No.	Description	Quantity	Unit	Unit rate	Amount
1.	Fabrication of the Hydraulic Power Unit Lid as per the specifications	**2**	**Nos**		
2.	Fabrication of the Valve pack unit (Tank and Lid) as per the specifications	**2**	**Nos**		
3.	Factory Acceptance test	**Lumpsum**			
4.	Transportation charges	**Lumpsum**			
Total Amount					
(Amount in words. _____)					

Note:

 # The goods items quoted are manufactured in India and not imported from any country.

***** **For Supply**
The GST as applicable will be paid.

For Service
GST @ 18% is applicable.

NIOT has enrolled under GST in the category "Tax Deductor". The bidders are requested to update their database regarding NIOT's Registration under GST-Tax Deductor. (See clause No.51 II (c))

TDS @ 2% on the order value towards GST will be deducted on payments made to the supplier in respect of goods and/or services, supplied/provided if the value exceeds Rs. 2.5 lakhs.

1. The copy of the GST registration certificate to be attached.
2. The duly filled technical and commercial compliance sheets should be submitted along with quotation/offer.

We agree to all applicable terms and conditions listed in the tender document.

Signature with Seal

TECHNICAL SPECIFICATION FOR SUPPLY OF HYDRAULIC POWER UNIT TANK LID AND VALVE PACK UNIT

1. Introduction:

This tender document invites bids for the fabrication and supply of hydraulic pack unit (HPU) lid and valve pack unit components, designed for integration into the underwater mining machine's hydraulic system. The HPU lids are intended to enclose the existing hydraulic power unit tanks, ensuring a sealed and pressure-resistant environment. The valve pack units are designed to house and protect the system's control valves, serving as a critical interface for hydraulic operations.

2. Scope of supply:

The scope of supply includes the fabrication and delivery of hydraulic pack unit (HPU) lid and valve pack unit components as per the tender specification and terms & conditions of NIOT given in the subsequent section.

3. Prequalification Criteria	YES/NO
The bidder must have successfully executed at least five Manufacturing/fabrication orders within the last 3 years proceedings to the date of opening of Tender. Documentary evidence in the form of Purchase Orders (POs), Work Completion Certificates or Client Letters confirming satisfactory execution must be submitted.	

4. Technical Specification:

S.No	Item Description	Specification
I	**Details of HPU Lid**	
1	Material of construction	SS316L
2	Outer Diameter	700 mm
3	Thickness	15 mm
4	Number of Bushes for hydraulic connections	1 ½ inches BSPP thread – 3 Nos 1 inches BSPP thread – 3 Nos ¾ inches BSPP thread – 1 No PCD of Bushes as per drawings
5	Details of chamfering in bushes	Chamfering 30 deg to 45 deg from the horizontal surface and the chamfer depth should not be more than half the pitch of the thread.
6	PCD for Outer Stud Holes	670 mm
7	Number of Outer Stud Holes	30 Nos
8	Diameter of Stud Holes	12 mm
9	Details of O ring groove in lid	Outer Diameter: 637 mm Inner Diameter: 620 mm Depth: 4.5 mm Width: 8.5 mm

10	Details of Flange	Dimensions as per ISO 2084, NP16
11	Details of O ring groove in flange	Outer Diameter: 184 mm Inner Diameter: 170 mm Depth: 4 mm Width: 7 mm
12	Details of pipe extension	Inner Diameter: 150 mm Wall Thickness: not less than 8 mm
13	Number of tapped hole in the lid	1 No / 1 inch 14 UNF Tapped hole (1-14) Counterbore hole diameter: 70 mm Depth of counterbore hole: 2 mm Positioning as per the diagram
II	**Details of Valve Pack Unit (Tank and Lid)**	
14	Material of construction	SS316L
15	Overall dimension of tank	645 mm X 439 mm X 295 mm
16	Thickness of the tank body	5 mm and 10 mm for the top bolting surface
17	Number of Bushes for hydraulic connections in the tank body	½ inches BSPP thread – 4 Nos, positioning as per the diagram
18	Details of stiffners in the tank body	10 mm X 10 mm bar as stiffners welded with tank body as per the drawings
19	Number of outer stud holes on the tank body	34 Nos
20	Diameter of Stud Holes on the tank body	9 mm
21	Number of tapped hole in the lid	1 No/ 1 inch 14 UNF Tapped hole (1-14) Positioning as per the diagram
22	Details of O ring groove in the Lid	Number of O ring grooves: 2 Nos Width: 6 mm Depth: 3.5 mm Positioning as per drawings

5. Technical Compliance sheet:

S. No.	Description	Specification	YES	NO	Remarks
I	**Details of HPU Lid**				
1	Material of construction	SS316L			
2	Outer Diameter	700 mm			
3	Thickness	15 mm			
4	Number of Bushes for hydraulic connections	1 ½ inches BSPP thread – 3 Nos 1 inches BSPP thread – 3 Nos ¾ inches BSPP thread – 1 No PCD of Bushes as per drawings			
5	Details of chamfering in bushes	Chamfering 30 deg to 45 deg from the horizontal surface and the chamfer depth should not be more			

		than half the pitch of the thread.			
6	PCD for Outer Stud Holes	670 mm			
7	Number of Outer Stud Holes	30 Nos			
8	Diameter of Stud Holes	12 mm			
9	Details of O ring groove in lid	Outer Diameter: 637 mm Inner Diameter: 620 mm Depth: 4.5 mm Width: 8.5 mm			
10	Details of Flange	Dimensions as per ISO 2084, NP16			
11	Details of O ring groove in flange	Outer Diameter: 184 mm Inner Diameter: 170 mm Depth: 4 mm Width: 7 mm			
12	Details of pipe extension	Inner Diameter: 150 mm Wall Thickness: not less than 8 mm			
13	Number of tapped hole in the lid	1 No / 1 inch 14 UNF Tapped hole (1-14) Counterbore hole diameter: 70 mm Depth of counterbore hole: 2 mm Positioning as per the diagram			
II	**Details of Valve Pack Unit (Tank and Lid)**		**YES**	**NO**	**Remarks**
14	Material of construction	SS316L			
15	Overall dimension of tank	645 mm X 439 mm X 295 mm			
16	Thickness of the tank body	5 mm and 10 mm for the top bolting surface			
17	Number of Bushes for hydraulic connections in the tank body	½ inches BSPP thread – 4 Nos, positioning as per the diagram			
18	Details of stiffners in the tank body	10 mm X 10 mm SS316L bar as stiffners welded with tank body as per the drawings			
19	Number of outer stud holes on the tank body	34 Nos			
20	Diameter of Stud Holes on the tank body	9 mm			
21	Number of tapped hole in the lid	1 No/ 1 inch 14 UNF Tapped hole (1-14) Positioning as per the diagram			

22	Details of O ring groove in the Lid	Number of O ring grooves: 2 Nos Width: 6 mm Depth: 3.5 mm Positioning as per drawings			
III	**General Terms and Conditions**				
23	Welding	TIG welding process and SS-316L compatible electrodes and filler wires. As per ASME Section IX			
24	Factory Acceptance test	Pressure test to be done on all the bushes for an oil pressure of maximum 350 bar.			
25	Surface finish	Smooth and free of burrs			

6. Factory Acceptance test

Pressure/Leakage Test: In each bushes of lid and valve pack tank body dummy hydraulic connector is fixed at any one side and hydraulic oil line is connected at the other end. The pressure is to be applied gradually up to 350 bar abs using a hydraulic hand pump and to be kept there for at least 30 minutes. After 30 minutes the pressure drop to be observed and visual check should be carried out for any noticeable leakage.

7. Technical Terms and Conditions:

1. All material of construction should be SS316L.
2. The circular Lid to be cut and machined from a forged block of SS316 material.
3. Material composition certificate to be provided along with the supply conforming to SS316L.
4. Bushes to be machined separately as per dimension and welded with the lid.
5. Complete welding shall be done with TIG welding process and SS-316L compatible electrodes and filler wires shall be used.
6. O-ring groove to be cut on the flat surface and the perpendicularity of the surface to be confirmed.
7. The face on which the O ring groove is to be cut to be face milled first to confirm surface flatness as this is crucial for proper sealing.
8. Bolt holes to be machined as per dimension provided. The bolt pitch to be matched with the tank having same bolt pitch as that of the lid available at NIOT after delivery. If any pitch mismatch arises during assembly, the vendor should take necessary action to sort out the issue and confirm the assembly.
9. Bushes should have chamfering 30 deg to 45 deg from the horizontal surface and the chamfer depth should not be more than half the pitch of the thread to facilitate adapter mounting and effective sealing.
10. Threads in bushes should be perfect to assist effortless fastening of adapters by hand into it.

11. Bushes are to provide 350bar pressure sealing through it. The vendor should test each bushes for 350bar pressure and take photographs and videos of the same or the vendor to invite NIOT official to their place at any possible day for visual inspection of the test or the vendor should perform the sealing test at NIOT with their equipments upon delivery.
12. The O ring sealing of the lid should provide 2bar pressure sealing after assembly. If any leak is found during testing, the vendor should take complete responsibility and sort out the issue immediately.
13. Weldment should be leak proof at any given time.
14. Connecting pipe should be as per standard ISO 2084 NP16.

8. List Enclosure

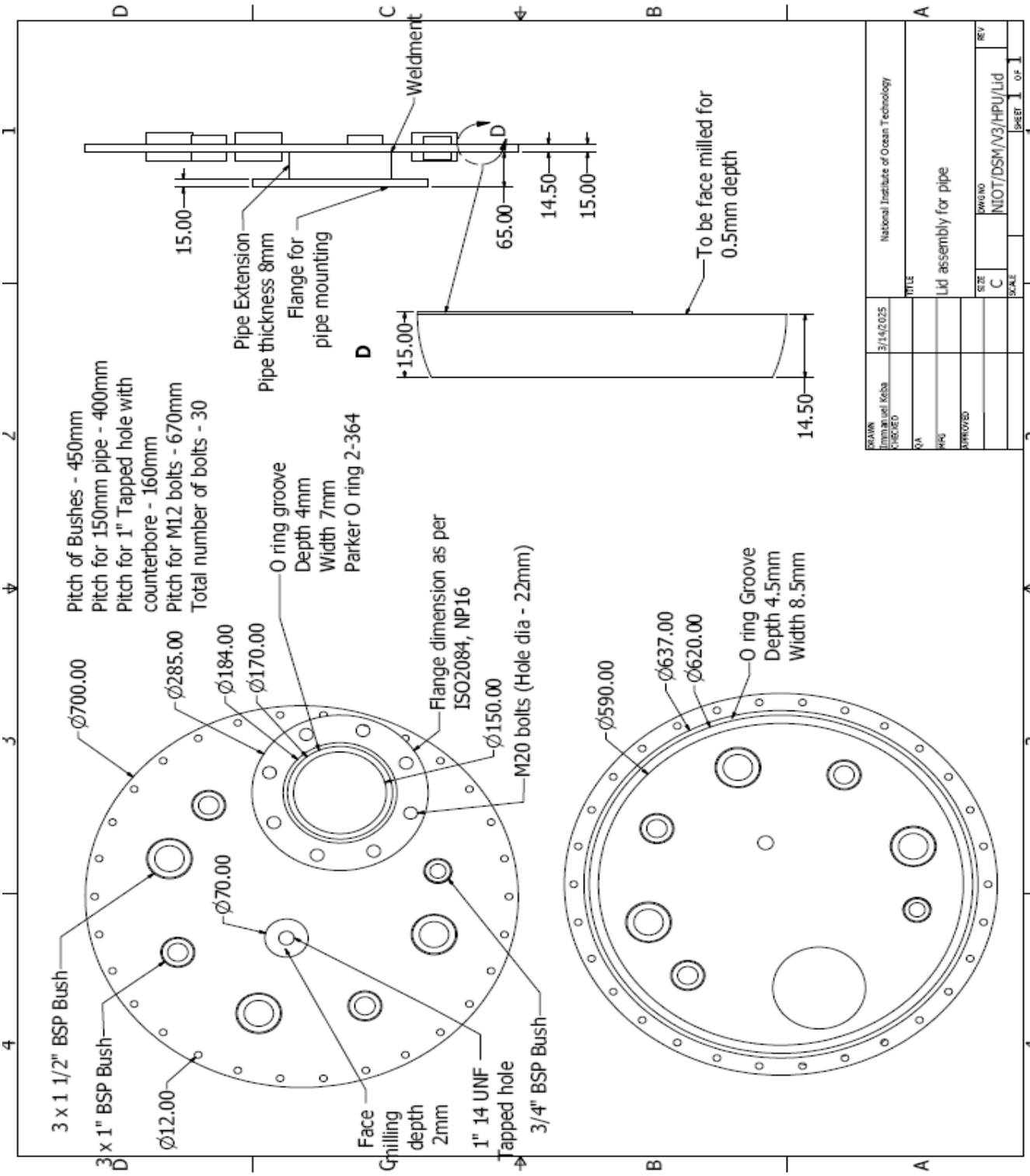
1) Drawing of HPU Lid – Annexure I

2) Drawing of Bushes for hydraulic connections – Annexure II

2) Drawing of Valve Pack Unit – Annexure III

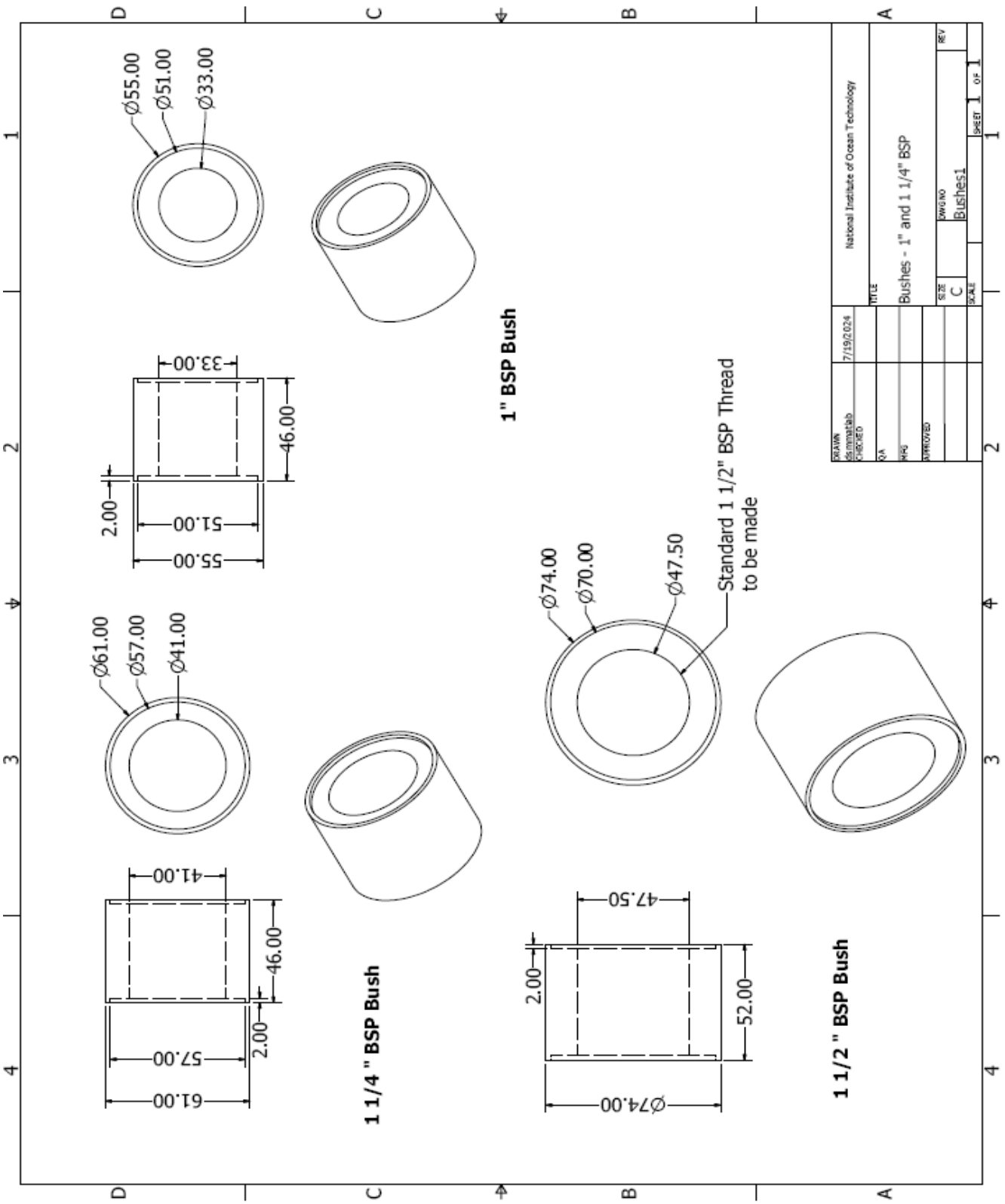
ANNEXURE I

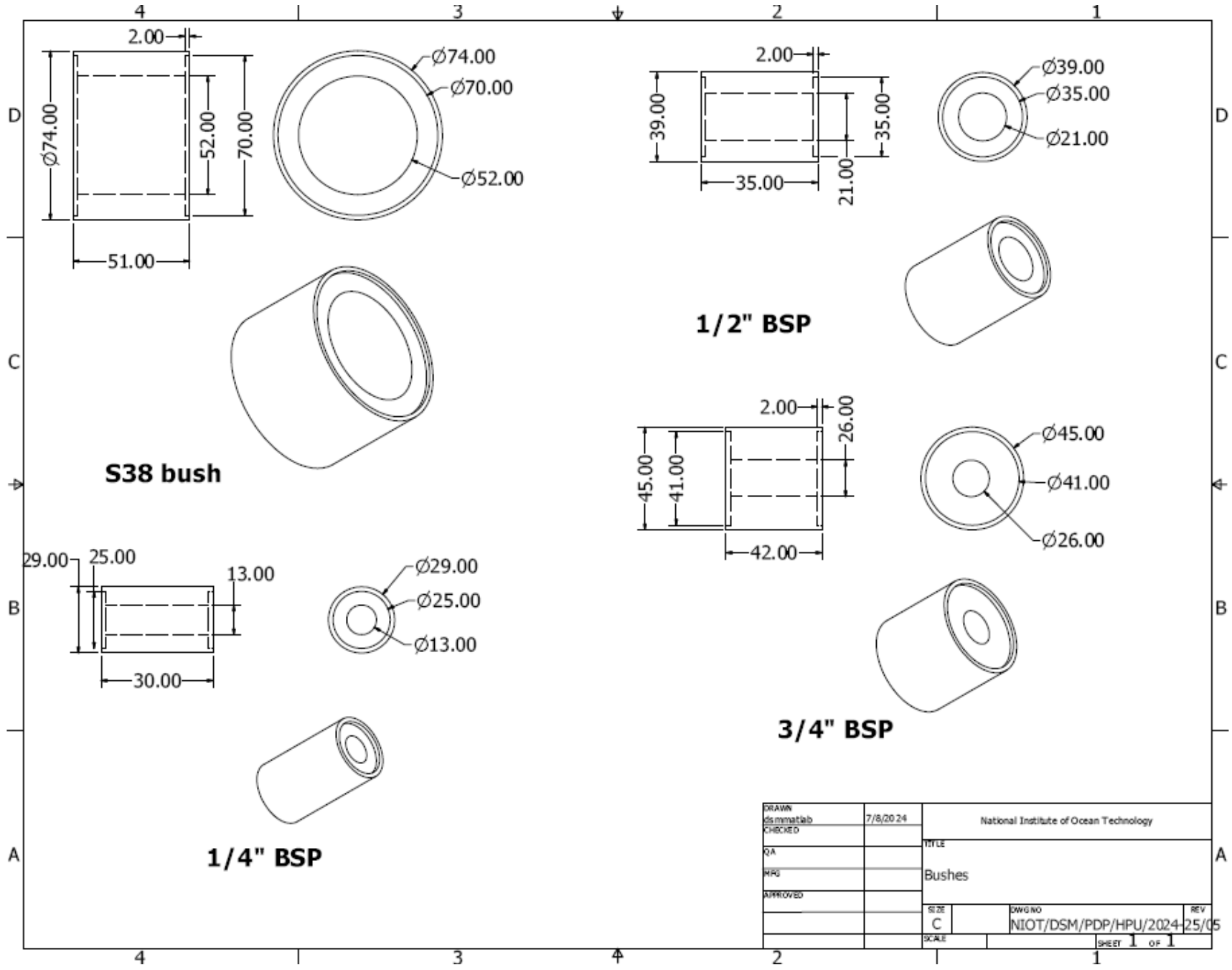
DRAWING OF HPU LID



ANNEXURE II

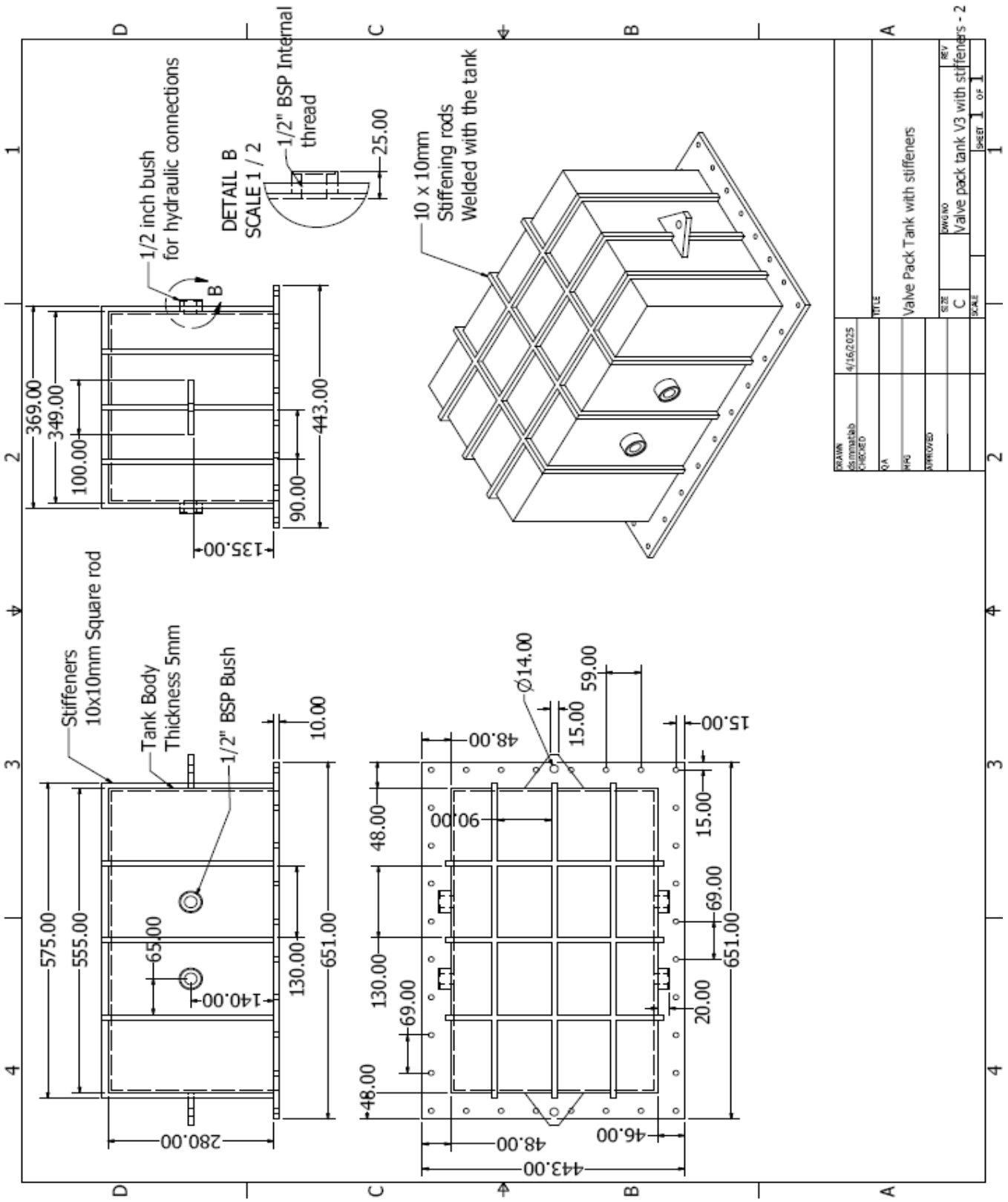
DRAWING OF BUSHES FOR HYDRAULIC CONNECTIONS

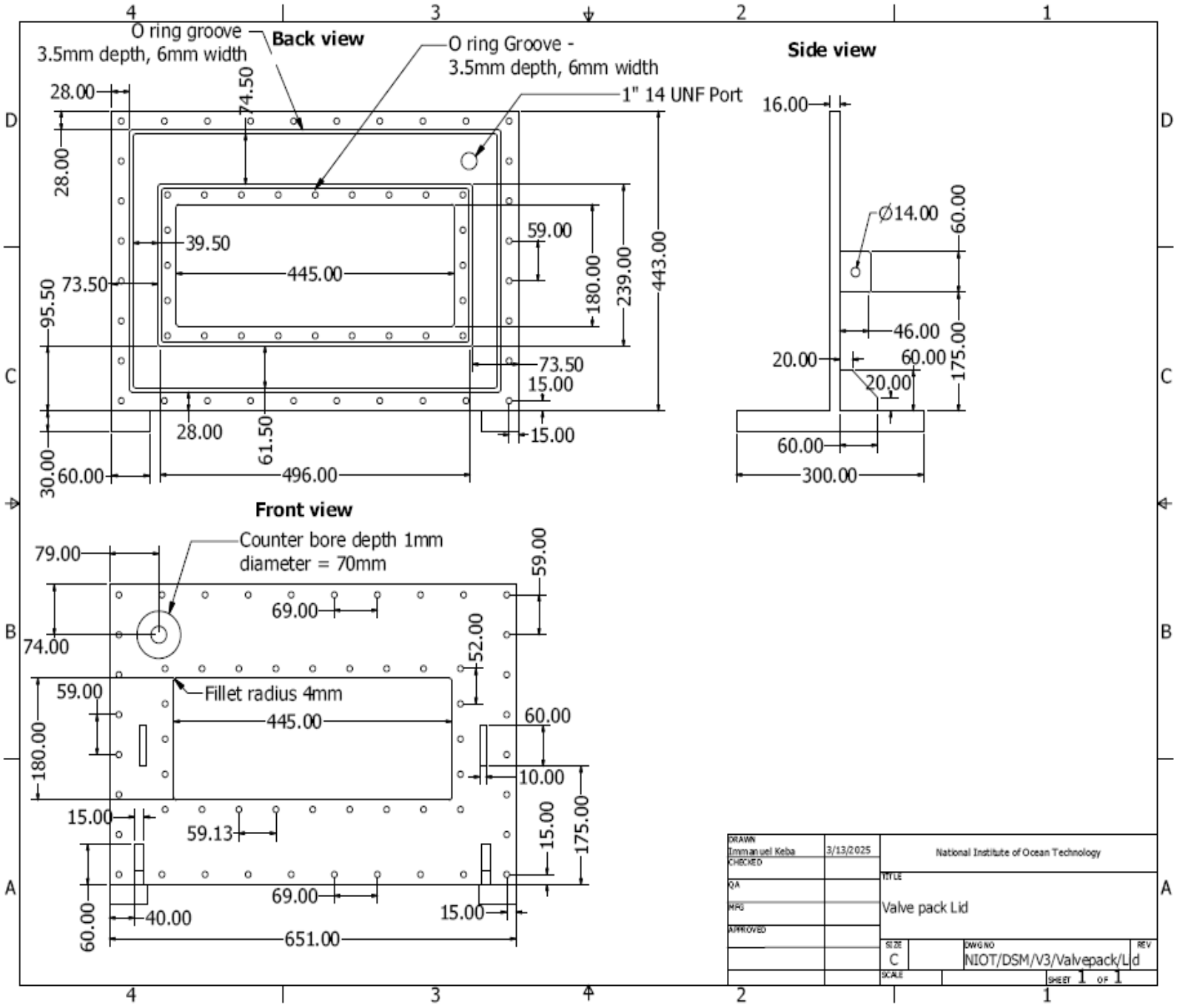


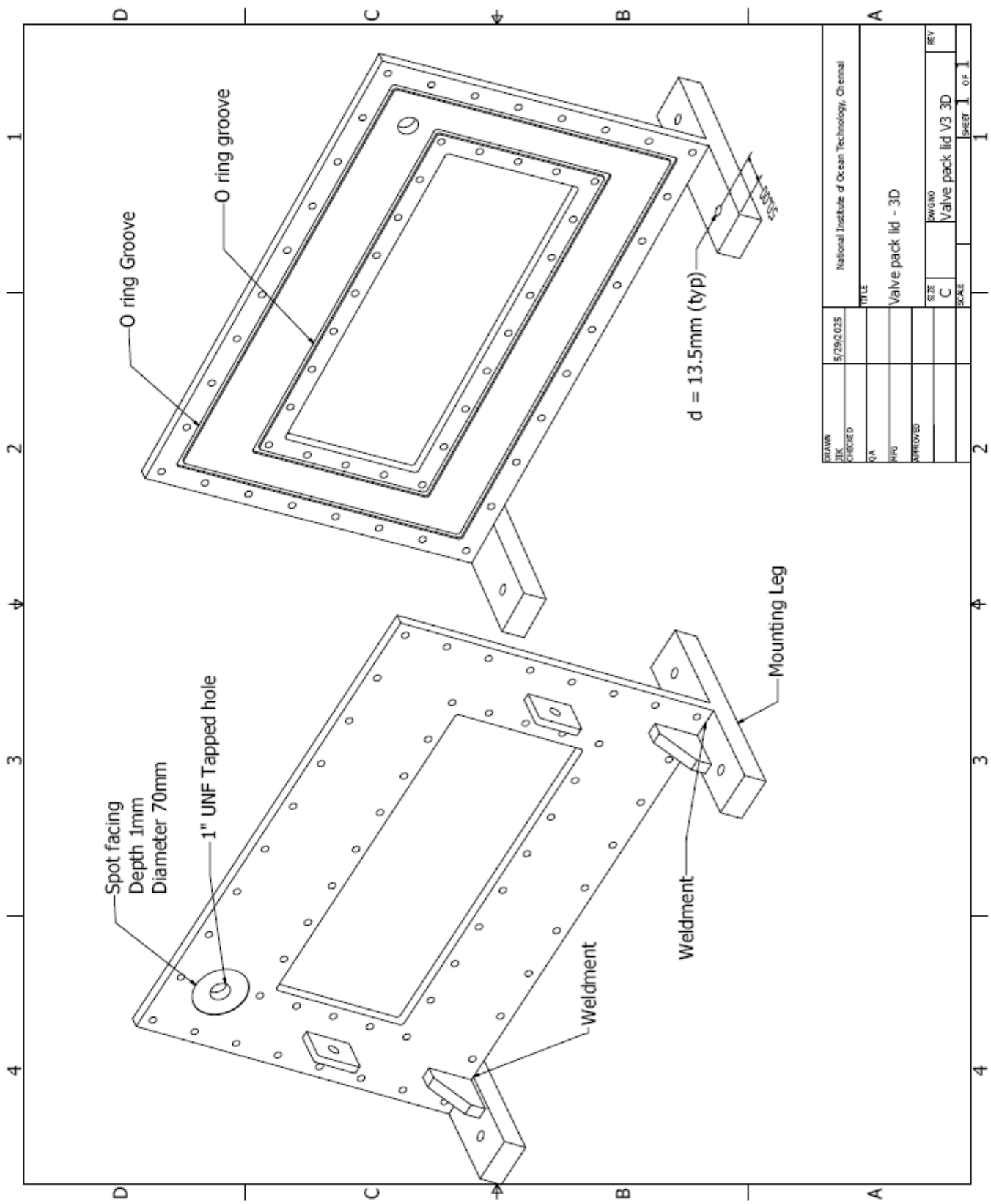

2.00
Ø74.00
52.00
70.00
Ø74.00
Ø70.00
Ø52.00
51.00
S38 bush
2.00
39.00
35.00
Ø39.00
Ø35.00
Ø21.00
21.00
1/2" BSP
2.00
26.00
45.00
41.00
Ø45.00
Ø41.00
Ø26.00
42.00
3/4" BSP
29.00
25.00
13.00
Ø29.00
Ø25.00
Ø13.00
30.00
1/4" BSP
DRAWN
dsmmatlab
7/8/2024
CHECKED
QA
MFG
APPROVED
National Institute of Ocean Technology
TITLE
Bushes
SIZE
C
DWG NO
NIOT/DSM/PDP/HPU/2024-25/05
REV
SCALE
SHEET 1 OF 1

ANNEXURE III

DRAWING OF VALVE PACK UNIT




Back view
O ring groove
3.5mm depth, 6mm width
O ring Groove -
3.5mm depth, 6mm width
1" 14 UNF Port
28.00
74.50
28.00
39.50
445.00
59.00
180.00
239.00
443.00
73.50
95.50
73.50
15.00
28.00
61.50
15.00
30.00
60.00
496.00
Side view
16.00
Ø14.00
60.00
46.00
175.00
20.00
60.00
20.00
60.00
300.00
Front view
Counter bore depth 1mm
diameter = 70mm
79.00
59.00
69.00
74.00
52.00
59.00
Fillet radius 4mm
445.00
60.00
180.00
10.00
15.00
59.13
15.00
175.00
69.00
60.00
40.00
15.00
651.00
DRAWN
Immanuel Keba
3/13/2025
CHECKED
QA
MFG
APPROVED
National Institute of Ocean Technology
TITLE
Valve pack Lid
SIZE
C
DWG NO
NIOT/DSM/V3/Valvepack/Lid
REV
SCALE
SHEET 1 OF 1


O ring Groove
O ring groove
d = 13.5mm (typ)
Spot facing
Depth 1mm
Diameter 70mm
1" UNF Tapped hole
Mounting Leg
Weldment
Weldment
DRAWN
JJK
5/29/2025
CHECKED
QA
MFG
APPROVED
National Institute of Ocean Technology, Chennai
TITLE
Valve pack lid - 3D
SIZE
C
DWG NO
Valve pack lid V3 3D
REV
SCALE
SHEET 1 OF 1

Note:

The literature/brochure/write up of the items quoted should be uploaded.

Terms and Conditions:

1. **Validity**: Quote should be valid for **90 days**.

2. **Payment:** 100% Payment will be made within 30 Days after supply, acceptance of the materials. No advance payment shall be made.

3. **Delivery:** The items should be delivered at NIOT, Chennai within **16weeks** from the date of receipt of the purchase order.

4. **Warranty:** All the supplies shall carry warranty for **12 months** from the date of supply and acceptance by NIOT. The format of the warranty certificate shall be furnished to the successful bidder.

5. **Part Supply:** Not Allowed. All the items should be delivered in a single lot within the stipulated time.

6. **Material Test Certificate (MTC)**: The supplier should submit a Material Test Certificate (MTC) from as accredited laboratory.

We agree to all terms and conditions as per tender document.

Date: **Signature of supplier**

Place:

Stamp

SPECIMEN COPY (to be given in your Letter Head)

WARRANTY CERTIFICATE

The contractor / seller …….

Address ……. hereby declares that the goods/stores/articles, namely …….. sold to the buyer Director, National Institute of Ocean Technology, Chennai, under the Contract / Purchase Order No.: ……. shall be of the best quality (and Workmanship) and shall be strictly in accordance with the specifications and particulars contained / mentioned in the clause / order …… hereof and the contractor / seller hereby guarantees that the said goods / stores / articles would continue to confirm to the description and quality aforesaid for a period of …… days/month/year from the date of delivery of the said goods / stores / articles to the purchaser i.e., …… day of …… 2025 and that notwithstanding the fact that the purchaser or his authorized representative may have inspected and / or approved the said goods / stores / articles, if during the aforesaid period of …… days / months / years the said goods/stores/articles be discovered not to conform to the description and quality aforesaid or have deteriorated (and the decision of the purchaser in that behalf will be final and conclusive) the purchaser will be entitled to reject the said goods/stores/articles or such portion thereof as may be discovered not to conform to the said description and quality. On such rejection the goods/articles/stores will be at the seller's risk and all the provisions herein contained relating to rejection of goods etc., shall apply. The contractor / seller, if so called upon to do, replace the goods, etc., or such portion thereof as is rejected by the purchaser, otherwise the contractor/seller shall pay the purchaser such damages as may arise by reasons of the breach of the conditions herein contained. Nothing herein contained shall prejudice any other right of the purchaser in that behalf under this contract or otherwise.

ANNEXURE

Format for Self Certification under Preference to "MAKE IN INDIA" Policy
(Refer Clause No. 2.8 & 3.4.4 of ITT)

CERTIFICATE

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017, as amended from time to time and as applicable on the date of submission of tender, we hereby certify that we M/s._____ (supplier name) are local supplier meeting the requirement of minimum **Local Content _____%** as defined in above orders for the material against Tender No._____

Details of location at which local value addition will be made is as follows:

We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rule for which for which a bidder or its successors can be debarred for up two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Seal and Signature of Authorized Signatory