



भारतीय प्रौद्योगिकी संस्थान इंदौर
Indian Institute of Technology Indore
सिमरोल, खंडवा रोड इंदौर – 453552
Simrol, Khandwa Road, Indore- 453552

E-PROCUREMENT MODE

Bidding Documents for

Supply & Installation
of
Tilting Thruster Underwater vehicle

**Document to be submitted online
for
(Technical & Financial Bid as per Schedule of requirement)**

In-Charge
Material Management Section (MMS)
IIT INDORE



भारतीय प्रौद्योगिकी संस्थान इंदौर
सिमरोल, खंडवा रोड़ इंदौर – 453552

Indian Institute of Technology Indore
Simrol, Khandwa Road, Indore- 453552

Tel.: 0731-2438700 Ext: 958/949
Email: mms@iiti.ac.in

**TENDER DOCUMENT
FOR
E-PROCUREMENT**

O Online e-Tenders are invited by IIT Indore (in Two bid System) from Original Furniture Manufacturers (OEM) their Authorized distributors/ Accredited Indian Agents /sole selling agents for the of following items:

Sl. No.	Description of Stores	NIT No.	EMD (in INR) - Online
1.	Tilting Thruster Underwater vehicle (For Technical Specification Refer Chapter-6)	IITI(MM)/EE(PRJ)/1/1A/79/SKV/2019-2020	Rs. 30,000/- (Rupees Thirty Thousand Only) Online EMD Submission: Bidder can submit their EMD online by visiting to the below link: https://www.onlinesbi.com/sbcollect/collecthome.htm

SUBMISSION OF BIDS ONLINE IN TWO BID <https://eprocure.gov.in/eprocure/app>

*NIT No. 79(PRA) should be mentioned for the purpose of EMD Submission and the Tender No. should be refereed for bid submission/communication etc.

Note:

- I. Tender Documents with detail terms & conditions can be downloaded from our website: http://www.iiti.ac.in/tender_mms.php & <https://eprocure.gov.in/eprocure/app>
- II. The pre-bid report will be uploaded on the website & CPPP and the same will be a part of the tender document.
- III. All the details/document pertaining to the tender such as tender document, pre-bid report, corrigendum and any further updates will be available only on our website and also at Central Public Procurement Portal.
- IV. Bids/Quotations may be submitted directly by the OEM or their Authorized distributors/Dealers/Resell Agents/Channel Partners with proof of authorization.
- V. Those who quote for all items can participate in the bidding process.
- VI. All the communications with respect to the tender shall be addressed to the tender shall be addressed to In- charge (MM), IIT Indore, Tel.: 0731-2438700 Ext: 958/949, Email id- mms@iiti.ac.in.

IIT Indore shall not be responsible for non-receipt bid due to internet issues or any other reasons.
For any issues related to tender please contact Material Management Section,
Tel: +91-731-2438700 Ext: 958/949 Email: mms@iiti.ac.in

In-charge (MM)

In-Charge
Material Management Section (MMS)
IIT INDORE

ONLINE BIDDING DOCUMENTS
FOR
PURCHASE OF GOODS

CONTENTS

Chapter 1	Schedule of Tendering
Chapter 2	Instruction to Tenderers
Chapter 3	List of Document to be Uploaded with Technical Bid
Chapter 4	Instructions for Online Bid Submission: • Registration • Searching of Tender Documents • Preparation of Bids • Submission of Bids • Assistance to Bidders & General Instruction to the bidders
Chapter 5	General Terms & Conditions
Chapter 6	Technical Bid
Chapter 7	Price Bid
Chapter 8	Acceptance Certificate
Chapter 9	Pre-bid Query Format
Chapter 10	Performance Bank Guarantee

CHAPTER- 1
Schedule of Tendering:

Sl. No.	Event	Date and Time/ Remarks
01	Downloading of Tender document online from CPPP	From December 13, 2019 https://eprocure.gov.in/eprocure/app and http://www.iiti.ac.in/tender_mms.php
02	Bid Submission Start Date	December 13, 2019
03	Last date & Time of Submission of Bids Online (Technical and Price Bid)	December 26, 2019 up to 03.00PM(IST) Please refer tender Terms at IITI
04	Opening of Technical Bids Online	December 27, 2019 at 03.00 PM, (IST) Please refer tender Terms at IITI
05	All the communications with respect to the tender shall be addressed to:	In-charge (MMS) IIT Indore, First Floor, Sodium Building, Khandwa Road, Simrol, Indore- 453552 Tel.: 0731-2438700 Ext: 958/949 Email: mms@iiti.ac.in
06	Submission of Bid Online	https://eprocure.gov.in/eprocure/app
07	For taking assistance, if any	CPP Portal website: www.eprocure.gov.in CPP Portal Help Desk Toll Free No.:18002337315, 180030702232

CHAPTER- 2**INSTRUCTIONS TO THE TENDERERS**

The tender shall be submitted in accordance with these instructions and any tender not confirming to the instructions as under is liable to be rejected. These instructions shall form the part of the tender and the contract.

1. For Online Bid Submission as per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement Portal (URL:<http://eprocure.gov.in/eprocure/app>). The bidders are required to submit copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates.
2. More information useful for submitting the online bids on the CPP Portal is available/obtained at URL:<http://eprocure.gov.in/eprocure/app>
3. For Registration: Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<http://eprocure.gov.in/eprocure/app>) by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.
4. Foreign Bidders have to refer "DSC details for foreign Bidders" for Digital signature Certificates requirements which comes under Download Tab at <http://eprocure.gov.in/eprocure/app?page=Standard Bidding Documents &service=page> and the remaining part is same as above and below.
5. While submitting the tender, if any of the prescribed conditions are not fulfilled or are incomplete in any form, the tender is liable to be rejected. If any tenderer stipulate any condition of his own, such conditional tender is liable to be rejected.
6. IIT reserves the right to reject any tender/bid wholly or partly without assigning any reason.
7. The Technical Committee constituted by the IIT shall have the right to verify the particulars furnished by the bidder independently.
8. Tenderer shall take into account all costs including installation, commissioning, cartage etc. for giving delivery of material at site i.e. IIT Indore before quoting the rates. In this regard no claim for any extra payment for any reason shall be entertained.
9. The item should be delivered at IIT Indore, Khandwa Road, Simrol, Indore and the supplier shall be responsible for any damage during the transit of goods.
10. All the tender documents & price bid to be uploaded as per this tender are to be digitally signed by the bidder.
11. Interested bonafide and reputed manufacturers/Indian agents (on behalf of their foreign principals) may submit online bids for each of the above equipment along with all requisite documents and scanned copy of online EMD submission reference.
12. The Bidder(s) may note that ONLINE BIDS will ONLY be accepted. All the requisite supporting documents mentioned in the bid document should and must be uploaded On-line <http://eprocure.gov.in/eprocure/app>. The Bids sent through FAX, E-mail, by hand and/or by post shall not be accepted/ processed, in any case.
13. The bidders may submit duly filled and completed bidding document ONLINE as per instruction contained in the bidding documents. Incomplete bid shall be rejected. The conditions of tender shall be governed by the details contained in complete bid document.
14. In case, holiday is declared by the Government on the day of opening the bids, the bids will be opened on the next working day at the same time. The IIT reserves the right to accept or reject any or all the tenders.
15. The detailed instruction for online submissions of bid(s) through e-procurement module of Central Public Procurement of NIC, the bidder(s) may visit following link:- <http://eprocure.gov.in/eprocure/app?page=HelpForContractors&service=page>

In-charge (MM)

CHAPTER – 3**LIST OF DOCUMENT TO BE UPLOADED WITH TECHNICAL BID**

1. The intending Tenderer, in case of **Original Equipment Manufacturers** shall upload a **self-declaration on their letter-head as PDF file in Cover-I of e-tender**, along with the acceptance letter tender documents, confirming that they are regularly manufacturing, supplying, installing, testing & commissioning of the similar equipment.
2. The intending tenderer, in case of **Authorized Distributor/ Authorized Dealer** shall possess **valid authorized Distributorship /Dealership license from Original Equipment Manufacturers**. The tenderer shall enclose the copy of the same as PDF file in Cover-I of the e-tender while submitting the tender.
3. The equipment shall be in compliance with the specifications mentioned in **Chapter-6** of the tender and shall be of the latest technology, best quality and high standards. Documents in support to Technical specifications and other terms & condition as mentioned **at Chapter-6** also to be enclosed with the Technical Bid.
4. Any optional accessories/ tooling, besides the standard equipment recommended for the better performance of the equipment, if offered, be provided with their full technical details including their use and advantage in a separate sheet with the tender documents.
5. Please submit copy of your Income Tax Number, GST and copy of PAN with your offer.
6. **The Bank/RTGS detail must** be submitted along with the quotations /Tenders on the letterhead.
7. Registration details of the firm/Company should be attached with bid.
8. Firm should submit online reference of EMD submission in the TECHNICAL BID.
9. Detailed technical and commercial terms & conditions should be attached.
10. The tenderer is advised to attach any additional information about competence, which they think is necessary for their offer. No further information will be entertained after the bid is submitted, unless IIT calls for it.

CHAPTER - 4**Instructions for Online Bid Submission**

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at:

<https://eprocure.gov.in/eprocure/app>.

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link "Online bidder Enrollment" on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / email in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and

content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload\ the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected. **The vendor/firm should fill the complete details as mentioned in BOQ and exclusion of any cell of BOQ (Financial bid), the cost will be treated as inclusive of GST and other charges as mentioned in the BOQ column.**
- 4) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 5) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 6) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- 7) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 8) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

GENERAL INSTRUCTIONS TO THE BIDDERS

- 1) The tenders will be received online through portal <http://eprocure.gov.in/eprocure/app>. In the Technical Bids, the bidders are required to upload all the documents in pdf format.
- 2) Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <https://eprocure.gov.in/eprocure/app> under the link "Information about DSC".
- 3) Tenderer are advised to follow the instructions provided in the "Instructions to the Tenderer" for the e-submission of the bids online through the Central Public Procurement Portal for e-Procurement at <http://eprocure.gov.in/eprocure/app>

Online Bid Form

The bidder shall complete the online bid form and the appropriate price schedule furnished in the online bidding documents, indicating, inter alia for the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices.

Online Bid prices

The Bidder shall indicate on the Price Schedule the unit price and total bid prices of the goods it proposes to supply under the Contract. To this end, the Bidders are allowed the option to submit the online bids for any one or more schedule specified in the "Schedule of Requirement" and to offer discounts for combined schedules. However, Bidders shall quote for the complete requirement of goods and services specified under each schedule on a single responsibility basis, failing which such bids (for the schedule in question) will not be taken into account for evaluation and will not be considered for award.

Prices indicated in the online price schedule shall be entered separately in the following manner.

I. For goods offered from within India:

- a. The price of the goods should be quoted for destination basis, charges towards freight, installation etc. may be mentioned inclusive of GST as applicable after referring the attached GST Notification.
- b. Any sales or other taxes/duties should be clearly mentioned, which will be payable on the goods in India if the contract is awarded.
- c. Charges for inland transportation, insurance and other local costs incidental to delivery of goods to their final destination should be mentioned.

- d. Any element of cost, taxes, duties levies etc. not specifically indicated in the online bid, shall not be paid by the purchaser. **If GST amount is not quoted in the BOQ (Financial Bid), the total cost will be treated as inclusive of GST. No further communication will be entertained later or else the EMD will be forfeited.**

II For goods offered from abroad

- a) The price of goods shall be quoted in Ex-Works/FCA/CIP and the same should be mentioned in terms & conditions of the firm.
- b) Charges for inland transportation, insurance and other local costs incidental to delivery of the goods from the port of entry in India to their final destination should be specified.
- c) The terms FOB, CIF, CIP etc. shall be governed by the rules and regulations prescribed in the current edition of INCOTERMS, published by the Chamber of Commerce, Paris.
- d) Prices quoted by the bidder shall remain firm and fixed during the currency of the contract and not subject to variation on any account, unless otherwise specified in the Schedule of Requirements.

III. Bid currencies

- a. For domestic goods prices shall be quoted in Indian rupees only. Commission for Indian Agent, if payable, shall also be quoted in Indian Rupees only.
- b. For imported goods prices shall be quoted either in Indian rupees or may be quoted in foreign currency and the portion of the allied work and services, which are to be undertaken in India (like installation & commissioning of equipment) are to be quoted in Indian currency.

IV. Indian Agent

- a) If a foreign bidder has engaged an agent in India in connection with its online bid it will be required to give the following information in the online bid:
- i) *Name and address of the Indian agent with their permanent income tax number.*
- ii) *Details of the services the agent will render*
- iii) *Agency commission shall be indicated in the space provided for in the price schedule and will be paid to the bidder's agent in Indian rupees*

V. Period of validity of online bids: Online Bids shall remain valid for acceptance for 180 days after the date of bid submission.

Proof of EMD submission must be attached to the Techno-Commercial Bid Only and NOT to the Price Bid. Bids received without EMD will be rejected.

Note – Non-compliance of the above may disqualify your offer for consideration.

In-charge (MM)
In-Charge
Material Management Section (MMS)
IIT INDORE

CHAPTER- 5

GENERAL TERMS AND CONDITIONS

1. **Delivery of Tender: Two- Bid through Online Mode.** IIT Indore reserves the right to ignore any tender who fails to comply with the above instructions without giving any notice.

Bidder: Tenders are invited only from **Original Equipment Manufacturers** OR their **authorized distributors/dealers**. Vendors are requested to **attach proof** to show that they are the authorized dealers of the brand that they are quoting for the manufacturers of the product.

Bids of internationally recognized brand from authorized dealers only will be accepted. Tender Documents will also be available on institute website: http://www.iiti.ac.in/tender_mms.php.

2. **Bid Security (EMD):** Earnest Money Deposit (EMD / Bid Security (BS) has to be submitted by bidders except those who are registered with:-

- (i) **Micro and Small Enterprises (MSEs)**
- (ii) **Central Purchase Organization (CPO)**
- (iii) **Concerned Ministry / Department.**
- (iv) **Startups as recognized by Department of Industrial Policy & Promotion (DIPP).**

➤ In such case, copy of the certificate showing registration with the abovementioned institutions to be uploaded in Cover-I of the e-tender in PDF format.

➤ In case the unit is not covered as above, the EMD should be submitted online via <https://www.onlinesbi.com/sbicollect/collecthome.htm> and the payment reference should be attached in PDF with Cover I.

➤ The EMD will be returned to the unsuccessful bidders after the orders are placed with the successful bidder.

➤ The EMD will be forfeited if the bidder fails to accept the order based on his/her offer/bid or fails to supply the items.

➤ No interest will be payable by the Purchaser on the Earnest Money Deposit. **The earnest money of all the unsuccessful tenderers will be returned to them after finalization of order or immediately after completion of validity of the bid.** The Earnest Money of successful bidder shall be returned on receipt of Performance Security. If the successful bidder fails to furnish the performance security or fails to supply the item as per Purchase Order (PO) terms and conditions within stipulated period, the earnest money shall be liable to be forfeited by IIT Indore

2. **Period for which the offer will remain opened:**

- a. Firms tendering should note the period for which it is desired that their offers should remain open for acceptance.
- b. Quotations qualified by such vague and indefinite expressions such as "subject to immediate acceptance", "subject to prior sale", etc. will not be considered.

3. **Concession/Exemptions:** IIT-I being an academic institute is entitled for availing Customs Duty exemptions in terms of Notfn. No. 51/96 dated 23.07.1996, Notfn. No. 28/2003- Customs dt. 01/03/2003, Notfn. No.43/2017- Customs dt. 30/06/2017 & notfn. No. 47/2017- Integrated Tax (Rate) dt. 14/11/2017, Notfn. No. 10/2018- Integrated Tax (Rate) dt.25/0/2018 and Notfn. No. 45/2017-Central Tax (rate) dt. 14/11/2017, Notfn. No. 45/2017-Union Territory Tax (Rate) dt. 25/01/2018 as amended from time to time. Presently this is valid till 31.08.2021 vide Order No. TU/V/RG-CDE(1145)/2016 Dt.28/02/2018 issued from DSIR-Min. of Sc.& Tech; Govt. of India. **Please state clearly that this Certificate is required.**

4. **Opening of Tenders:** Online tender opening as specified in schedule of requirement. The received bid will be opened online, and it will be evaluated by a technical committee which will decide the suitability as per our specification and requirement. The financial offer/bid will be opened only for the offer/bid which submits all the required necessary documents and verified by the technical committee as technically qualified bidder as per Tender.
- a) **Award Criteria:** *The Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive, technically qualified and has been determined to be the lowest responsive evaluated bid.*
- b) **Purchaser's Right to vary Quantities at Time of Award:** *The Purchaser reserves the right at the time of Contract award to increase or decrease the quantity of goods and services originally specified in the tender without any change in unit price or other terms and conditions. The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract.*
- c) **Notification of Award:** *Prior to the expiration of the period of bid validity, the Purchaser will notify the successful bidder in writing by registered letter or e-mail that the bid has been accepted by way of a Purchase Order.*
5. **Place of Delivery & Schedule:** IIT Indore, SIMROL, Khandwa Road, Indore – 453552 and should be delivered within schedule.
6. **Guarantee/ Warranty:** **The equipment should be covered comprehensive on-site warranty against any manufacturing defect for a period 01 year from the date of successful installation and acceptance or as mentioned in Chapter 6.** In case any part or whole of the equipment is found to be defective during the guarantee period, then the same will have to be replaced/repared free of cost at our premises. Warranty certificate should be submitted with the bill(s).
7. **Insurance:** The date of delivery should be strictly adhered to failing which the purchase order is liable to be cancelled. Penalty may be imposed as per P.O. terms & conditions. Goods should be securely, safely and adequately packed & dispatched and delivered at the risk of supplier. In case of damage consignment the same should be replaced without any cost to the Buyer and the supplier can collect the damaged consignment after satisfactory replacement.
8. **Inspection:** Before dispatch the materials, the Vendor will give sufficient advance notice of the date in writing on which the goods will be ready for inspection. The Vendor also shall provide the purchaser all necessary facilities for pre-dispatch inspection. If due to any reasons, it is not possible on the part of the purchaser to visit the plant/site of the Vendor for inspection of the items, the Vendor shall share the detailed schematic diagram, pictures of item and the details as required by the IITI.
9. **Right of Acceptance:** This office does not pledge itself and reserves to itself the right of accepting the whole or any part of the tender or portion of the quantity offered and the firm shall supply the same at the rate quoted. The firm shall be at liberty to tender for the whole or any portion or to state in the tender that the rate quoted shall apply only if the entire quantity is taken from the firm.
10. Items supplied are subject to inspection and acceptance and the supplier should collect/ replace the rejected items at his cost and risk.
11. **Specification and Make:** Quotation should be given for the exact specification and make as shown in the enquiry against Sl. No. of the item. If in the view of the supplier there is any other alternative item which can serve out purpose, quotation may also be given for the same separately. Client list along with the order copy of similar equipment supplied to any IITs / any Govt. Organization including detail of price & all charges must be attached. In the case of items quoted having specifications different than those mentioned in the enclosed Tender format, kindly submit the information and the prices in the same format but on additional Sheet.
12. **Proof of Registration OR OEM Certificate/ Sole Distributorship Certificate MUST be attached.**

13. No correspondence/discussion/visits whatsoever will be entertained on the subject unless specifically called by this office after opening the tenders for technical discussions/ price negotiations. Any violation of this will render the quotations invalid and the firm is liable to be blacklisted.
14. IIT reserves the right to call for techno-commercial/price negotiations. The company should depute competent representative for such discussion/negotiations whenever called for and he shall be competent to take on the spot decisions.
15. IIT does not bind itself to accept the lowest or any tender and may cancel / withdraw the tender without assigning any reason and no claim whatsoever, for any reason arising out of such action, will be entertained by IIT.
16. **Liquidated Damages:** - As Time is the essence of an order, the date of delivery should be strictly adhered to, otherwise the delivery in full or in part may not be accepted and penalty for late delivery will be imposed @ 0.5% (Half Percent) per week subject to a maximum of 10% of the total value of supply order & beyond 10% subject to approval of IIT. In case of delay in installation and Commissioning, Inspection, Certification etc. also the same rate of penalty shall be leviable.
17. **Force Majeure:** Neither the contractor nor the institute shall be liable to the other, for any delay in or failure of their respective obligations under this control caused by occurrences beyond the control of either party because of fire, floods, acts of God, acts of public enemy, wars, riots, strikes, lockouts, sabotage any law statute or ordinance order actions or regulations of the Government or any compliance there is similar to the above. Either party shall promptly notify the other of his commencement and cessation of such contingency and prove that such is beyond the controls and effects the implementation of this contract adversely.
18. The firm may give any of their commercial term, if required, in their techno-commercial offer only, and price quotation should contain only price.
19. Please inform the IIT in writing whether the owner of the firm or any of their partners/employees has close relations working with IIT Indore. This is for record only.
20. IIT reserves the right to modify/alter/insertion or deletion on any part of the tender document to ensure fulfillment of its material & service requirement at any stage.
21. The instructions about bidding given in this advertisement and the Tender Documents should be read thoroughly before bidding. IIT Indore reserves the right to accept or reject any or all quotations at any stage without assigning any reason whatsoever it may be.
22. **Cancellation:** IIT- Indore reserves the right to accept or reject or cancel any or all enquiries or quotations at any stage without assigning any reason thereof. In case of cancellation of order due to Non-compliance of the Terms and Conditions and Breach of the Contract, No compensation will be paid towards progress of order/procurement.
23. **Governing Law:** The order placed will be contract between the supplier and the buyer and shall be governed by the LAWS of India and under the contract shall be taken by the parties only in Indore, India to competent jurisdiction.
24. For any dispute, the place of jurisdiction shall be Indore, India only.

CHAPTER- 6
TECHNICAL BID

(Bidder should submit compliance matrix along with Technical Bid)

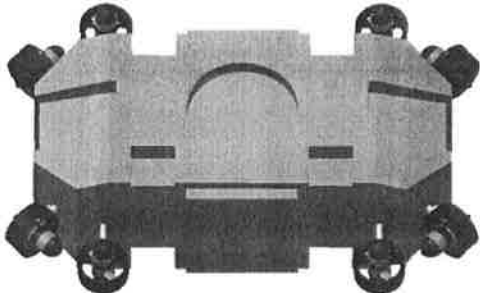
Item details and technical specification as mentioned below:

ITEM: Tilting Thruster Underwater vehicle

Sl. No.	Specifications	Details	Qty	Compliance Yes/No	Deviations, if any	
	<u>Tilting Thruster Underwater vehicle</u>					
1.	Ultra High torque DC motor with optical encoder with suitable PID motor driver for PWM and frequency control	Type: 18V DC Motor with Gearbox Speed: 100 rpm Encoder Type: Optical Encoder Resolution: 0.18 degree resolution of Output Shaft Length: <30mm Total Length: <165mm Diameter of Shaft: 8mm Stall Torque: > 250 kgf-cm	06			
2.	Underwater gripper for manipulator	Supply Voltage - 9 - 18 VDC PWM Logic Voltage - 3.3 VDC Peak Current - 6 amps Grip Force (at tip) > 95 N Grip Force (in middle) > 120N Jaw Opening > = 70mm Time to Open/Close < 2 secs Sufficient cable length > 600mm Pressure rated and underwater operation with a minimum depth of 30 m Weight in water with cable < 0.3kg	01			
3.	HD camera with low light performance with data acquisition capability	Supply Voltage = 5 VDC Max Current < 220mA Minimum Illumination - 0.01 lux Field of View (Horizontal) > = 80° Field of View (Vertical) >= 64° Focal Length = 2.97 mm Format = 1/2.9" Distortion = 1% Resolution = 2.4 to 5MP Standard = 1080p Compression format- H.264 /MJPEG / YUV2 (YUYV) Connector - JST-PH to USB Camera with PCB Dimensions < 35mm	01			

		x 35mm				
4.	Battery with suitable Charger for recharging	18.5 V Type: Li based Capacity: >2200 MAh Discharge: > 50C with suitable charger	02			
5.	Attitude Heading Reference System	Dynamic Heading Accuracy - 1.0° RMS Static Heading Accuracy -0.2° RMS (<1.0° RMS from -40° to +70° C) Dynamic Pitch/Roll Accuracy - 1.0° RMS Static Pitch/Roll Accuracy - 0.2° RMS Pitch/Roll Repeatability - 0.1° RMS Pitch/Roll Range - ± 90°, ± 180° Accelerometer Range - ± 4g (± 1g) Accel Noise Density - 250 ug/√Hz Accel Bias Stability - 0.07441 mg Accel Velocity Random Walk (VRW) - 0.09123 (m/s)/√Hr Gyro Dynamic Range- ± 500°/sec (± 300°/sec) Gyro Noise Density -0.04 dps/√Hz Gyro Bias Stability- 6.415°/Hr Gyro Angular Random Walk (ARW)- 0.2546°/√Hr Magnetic Range-±1.2 Gauss (±900 MGauss)2 Update Rate (Samples/Sec)-10, 100 Baud Rate- 1.2, 2.4, 4.8, 9.6; 19.2; 38.4; 57.6; 115.2 kbaud L x W x H - 38.4 x 22.9 x 9.1 mm (1.51 x 0.90 x 0.36 inches) approximately Storage Temp - -40° to +85° C Encapsulated or Enclosure provided Operating Temp- -40° to +85° C Humidity Resistance- 95%, 70° C, 24 hrs Meets MIL-STD-202G – Method 103A, Test Condition A Shock Resistance-5000g, 1ms Pulse, Half-Sine Wave Vibration Resistance-.02 dB Power Spectral Density, 5.35 G RMS, Meets MIL-STD-202G – Method 214A, Test	01			

		Condition I/C Power Supply - +4 to +10V DC Input Power, Operating Mode (Typical @ 4V) 60 mW Input Power, Sleep Mode (Typical @ 4v)- 16 mW 3.3V Logic UART Interface 3D and Adaptive In-Field Calibration Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output True North Heading Output Includes World Magnetic Model RoHS Compliant Maximum Magnetic Inclination (Dip) $\pm 80^\circ$ User Programmable Customizations Temperature Compensated				
6.	Raspberry Pi 4	LPDDR4 2GB variant with all power and communication auxiliaries Broadcom BCM2711, quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz	01			
7.	Cable Penetrators	Underwater cable penetrators with potting rated upto 30m depth for sealing the thruster cables	10			
8.	Vent Plugs	Aluminium alloy based underwater plugs rated upto 30m depth	10			
9.	Basic electronics and accessories for assembly with sufficient spares for operation	Electronics Cable and Accessories (including the internal and external cables(Teflon cable) Battery for microcontroller, connectors for interlinking and interfacing, Fuses and Holders, Terminal strips with lugs, Base plate for control board and IMU, etc., auxillary circuits and boards for complete assembly	01			
10.	Fabrication of vehicle along with sub systems and supply	As per the attached drawing	01			

	SS316L Fasteners with sufficient spares(2sets) Assembly and Integration of Mechanical systems				
11.	Water Leak Test Evaluation Operation testing Cost	As per specification mentioned below			
12.	1. Technical Details The scope of work includes: • Mechanical fabrication and assembly • Procurement of electrical subsystems and integration of the subsystems for basic operations both in air and water at the supplier site The proposed system should have a motion system which will provide manoeuvrability in 3D space. The detailed design of each component of the mobile system should be done on the basis of motion dynamics and external conditions. The proposed system will have two variants (1) eight control inputs for achieving 6-DOF motion in 3D space through eight thrusters and (2) eight control inputs for achieving 6-DOF motion in 3D space through four tilting thrusters. The thruster locations and orientations in the horizontal planes can be obtained through the proper modelling and optimizing the control effort. The conceptual design of the vehicle with eight redundant thrusters is presented in Fig. 1 and with four tilting thrusters is shown in Fig. 2.  Fig 1. Conceptual design of the proposed vehicle system with eight thrusters				

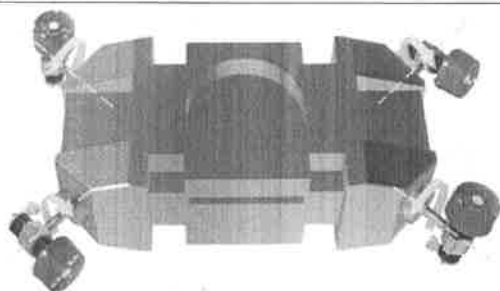


Fig 2. Conceptual design of the proposed vehicle system with four tilting thrusters
The proposed manipulator arm will have at least 3 DOF in order to provide dexterity and redundancy. The proposed preliminary design consists of three rotary joints followed as an articulated robot. The conceptual design of the vehicle manipulator system is presented in Fig. 3. The manipulator system will also be sealed and depth rated with similar specifications as that of the vehicle hull.

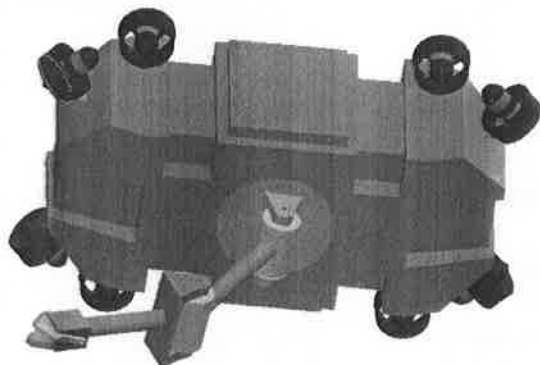


Fig 3. Conceptual design of the proposed vehicle manipulator system

2. Fabrication, system integration and system acceptance procedure

All the mechanical systems should be fabricated as per the specifications and to be integrated and assembled as per the drawing. The electrical components should be procured and interfaced with the all other electrical components and integrated with the Mechanical systems. The mechanical hull and external finishing should be sound and integrity of the hull for sealing should be robust. The choice of sealing systems should be such that, the system does not leak under any circumstances until the rated depth. The total system subsystems and components are to be integrated along with sensors as per the drawing should be tested for its basic functionality. The total system consists of underwater vehicle, manipulator arm etc.

Important note

The underwater thrusters are not included in the procurement list and the same will be the scope of IIT Indore. New and ably working thrusters will be provided to the vendor by IIT Indore for assembly.

	The working condition of the thrusters will be checked while handing over to the vendor and the same will tested again during the system delivery by the vendor to IITI in presence of both the parties. Any damage or malfunctioning of any of the thrusters or its parts while returning to IIT Indore will lead to forfeiting of the equivalent thruster costs including customs and other import charges from the final payment to be made to the vendor.				
	3. Inspection i. Inspection and certification Mechanical fabrication and assembly, procurement of electrical subsystems and integration of the both actuators and sensor and other subsystems for basic operations and control are to be done both in air and water at the supplier site. All the components shall conform to the design and dimensions indicated on the drawings. The basic functionality should be tested at the supplier's site before supply in the presence of IIT Indore representative. The hull and accessories shall be inspected, tested and certified by IIT Indore. The representative from IIT Indore shall have access at all reasonable times to all relevant phases of the work, and shall be given reasonable notice in advance of the start of the manufacturing processes. The inspector shall have the opportunity to witness all assembly and testing. No major modification on the drawing issued for fabrication is acceptable. However, in case of any minor modification required; not more than 10% of the total design specifications, they should be carried out during the course of fabrication. The same expenditure shall be borne by the supplier without any additional costs. ii. Water ingress test The hull shall be immersed in a water tank at a depth of 1-2 m for 48 hours, and tested for any leaks. Ideally there should not be any variation from its dry weight after cleaning the water from the vehicle surface. iii. Finish The hull shall be fully externally finished and shall be painted with polyurethane primer and finish coat (in yellow). The top surface of the vehicle should be smooth and slippery.				
14.	WARRANTY: 1 Year on-site Comprehensive warranty from the date of installation & acceptance.				
15.	INSTALLATION: Firm should install the Equipment free of cost at IIT Indore within 15 days from the date of delivery.				
16.	DELIVERY: Within 16 Weeks from the date of order.				
17.	SCHEMATIC DIAGRAM: Firm should share the schematic diagram along with the technical bid.				
18.	PRODUCT CATALOGUE: Firm should submit detailed specification and product catalogue.				

19.	PREVIOUS ORDER COPIES: Firm should share the previous order copies issued by any Govt./Autonomous Educational/Research Institute.				
20.	Training: Provide operational training to staff and student.				
21.	The supplier should have prior experience in supply, integration and installation of the marine or equivalent mechanical products in ocean/marine related projects to any Govt. /Autonomous Educational/Research Institute/ CFTI, Research lab or any National Institute of importance. A proof of previous purchase order copies shall be provided.				

Note:-

1. The bidder should submit his acceptance against each column as YES/NO and if No, bidder should specify the deviation.
2. Documents in support of technical specification may please attached with Technical Bid.

(Signature of the Bidder, with Official Seal)

CONDITIONS FOR TECHNO-COMMERCIAL BIDS**TECHNICAL**

1. Give brief description of item/equipment/material with accessories. Items offered should conform to BIS (ISI) specifications or as explicitly stated. In case specifications offered are different, separate comparative technical specifications sheet shall be attached with details such as Sl.NO, specifications offered deviations if any, and remarks. Any product brief, test certificates available may be enclosed.
2. List of spares, if applicable should be attached.
3. Any optional, if offered, be provided with their full technical details including their use and advantage.
4. **Drawings:** Drawings supplied by this office are to be returned along with your tender.
5. **Bidders disqualified by Technical evaluation committee in Technical bid will be given one week time to represent their case from the date of uploading the TEC report. Non-representation within the stipulated time, the tender will be processed further and no representation will be accepted thereafter.**

COMMERCIAL

1. **Payment** will be released through wire transfer/bank RTGS transfer after arrival, testing, inspection, installation of the item(s) and if found satisfactory with regard to quality, quantity and specifications ordered. The payment will be released after statutory deductions. For the payment, the firm has to submit bill(s), challans(s), warranty certificate, bank details/cancelled cheque, installation report, performance bank guarantee (if required) etc. to the Deputy Registrar (MM), IIT Indore. The payment will be released within 30 days after receiving of the bills as mentioned above and from the date of received, tested/inspected/commissioned and found satisfactory with regard to quality, quantity and specifications ordered. In case of import, the payment term may be 100% through Letter of Credit (LC)/Wire Transfer - 80% against dispatch documents and balance 20% after successful delivery & installation.
2. Give details of installation and commissioning except price which will be only in price bid (if applicable).
3. Warranty may be quoted as per the Standard Manufacturer Terms. Price for the additional warranty must invariably be quoted for three years.
4. Delivery desired is within **16 Weeks** from the date of releasing the supply order. Specify your delivery period. Items should be delivered only on Working Days (Monday to Friday) during office Hours only i.e. between 10.00am to 04.00pm.
5. In case of delayed supplies, liquidated damages at the rate of **0.5 percent per week** of delay with a maximum of **10 percent** of contract/order value will be levied.

6. The firm has to submit a performance security of 10% of the total order value to be submitted from an Indian Scheduled Bank before release of final payment and after successful installation and commissioning of the equipment in the form bank guarantee valid for 2 months beyond the warranty period. If PBG is not submitted the 10% payment of the total order value will be withheld till such time PBG is submitted. No interest will be payable by the Purchaser on the Performance Security deposited. In case supplier fails to provide satisfactory after sale service within the warranty period, the Performance Security submitted by the firm is liable to be forfeited. PBG format.
7. Delivery: **Free delivery at IIT Indore in case of indigenous orders.** In case of imported offers standard Incoterms shall be applicable. The bidders must quote both in EXWORK/FOB/FCA and CIP/CIF value for deciding the mode of shipment in case of Import.
8. Indicate mode of dispatch. Rail/Road/ Air/ Sea/Multimode.
9. In case equipment offered requires maintenance after the expiry of the warranty, please indicate approximate cost of comprehensive and on call basis maintenance and also availability of local support or otherwise.
10. Please note clearly that faxed, mailed and opened quotations are liable to be rejected.

(Signature of the Bidder, with Official Seal)

CHAPTER- 7**PRICE BID**

PRICE BID - Schedule of price bid in the form of BOQ format:

1. The below mentioned Financial Proposal/Commercial bid format is provided as BoQ along with this tender document at <https://eprocure.gov.in/eprocure/app>
2. **Bidders are advised to download this BoQ.xls** as it is and quote their offer/rates in the permitted column and upload the same in the commercial bid.
3. Bidder shall not tamper/modify downloaded price bid template in any manner. In case if the same is found to be tampered/modified in any manner, tender will be completely rejected and EMD shall be forfeited.
4. Any element of cost, taxes, duties levies etc. not specifically indicated in the BOQ, shall not be paid by the purchaser. **If GST amount is not quoted in the BOQ (Financial Bid), the total cost will be treated as inclusive of GST. No further communication will be entertained later or else the EMD will be forfeited.**
5. The tender shall remain valid for acceptance for **180 days**, from the date of tender opening.

OTHER CONDITIONS FOR PRICE BIDS

1. No unilateral revision in price will be admissible.
2. INCOTERMS (in case of imported item) should be clearly mentioned on the bid
3. Rates should be quoted in the accounting units (A/U) mentioned in this tender. Rates must be quoted clearly on free delivery basis at IIT Indore and total value is also indicated in words.
4. Any optional indicated in techno-commercial bids must be priced separately.
5. In case spares/accessories are applicable, their list and price should be clearly indicated separately.
6. The price must be stated for each item separately. The percentage of reduction, in the unit price should also be quoted, should an order to that extent be placed with you.

Signature of the Tenderer

Name of the Firm:

Contact No.:

Email:

Seal:

CHAPTER- 8**TENDER ACCEPTANCE LETTER**
(To be given on Company Letter Head)

To, _____

Sub: Acceptance of Terms & Conditions of Tender. Tender Reference No: _____

Name of Tender / Work: - _____

Dear Sir,

1. I/ We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely: _____ as per your advertisement, given in the above mentioned website(s).
2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organizations too have also been taken into consideration, while submitting this acceptance letter.
4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirely.
5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.
6. I / We do hereby declare that we have quoted our firm rates inclusive of taxes if not mentioned extra.
7. I/We agree to hold this offer open until **180 days** and shall be bound to supply/commission/install the equipment and dispatch the same within the specified period.
8. I/We agree to supply and commission/install the equipment and complete the whole of the work and hand over to the purchaser within the stipulated period, after receipt of intimation regarding acceptance of this tender/receipt of supply/service order.
9. **I/We agree that in case if we fail to deliver the goods/complete the work within the specified period, then institute shall be liable to claim liquidated damages from me/us by invoking EMD.**
10. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

CHAPTER- 9

PRE-BID QUERY FORM

Sl. No	Reference of the Clause No. of the Tender Document	Query/Clarification/Deviati on sought	Clarification/Response from IIT
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

CHAPTER- 10**PERFORMANCE SECURITY FORMAT**

To,

WHEREAS (name and address of the supplier) (hereinafter called "the supplier") has undertaken, in pursuance of contract no. datedto supply (description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee:

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of (amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We further undertake to pay the Purchaser any money so demanded notwithstanding any dispute or disputes raised by the supplier(s)/vendor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the supplier(s)/vendor(s) shall have no claim against us for making such payment.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until the day of, 20.....

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch

Phone No., Fax No. & e-mail id.

NIT No.: IITI(MM)/79(PRJ)/SKV/2019-2020

December 02, 2019

PREBID REPORT

The meeting for Pre-bid discussion was held at IIT-Indore on 22/11/2019 from 11.00 AM onwards for Notice Inviting E- Tender for Tilting Thruster Underwater vehicle.

The report of the meeting is as mentioned below.

Sl. No	Reference of the Clause/ Page No. of the Tender Document	Query raised by	Pre-bid Attended by	Response from IITI
01.	Chapter 6 - Point no. 10 & 12 Fabrication of vehicle along with the sub systems and supply of SS316 fasteners with sufficient spares (2sets) assembly and integration of mechanical systems.	Drawings are not provided in the document. We request you to provide the fabrication drawing to understand the structure.	Mr. Abhishek From M/s Ocean Robotix	Drawings attached as Annexure-1

The Revised Schedule of Bid submission is as mentioned below:

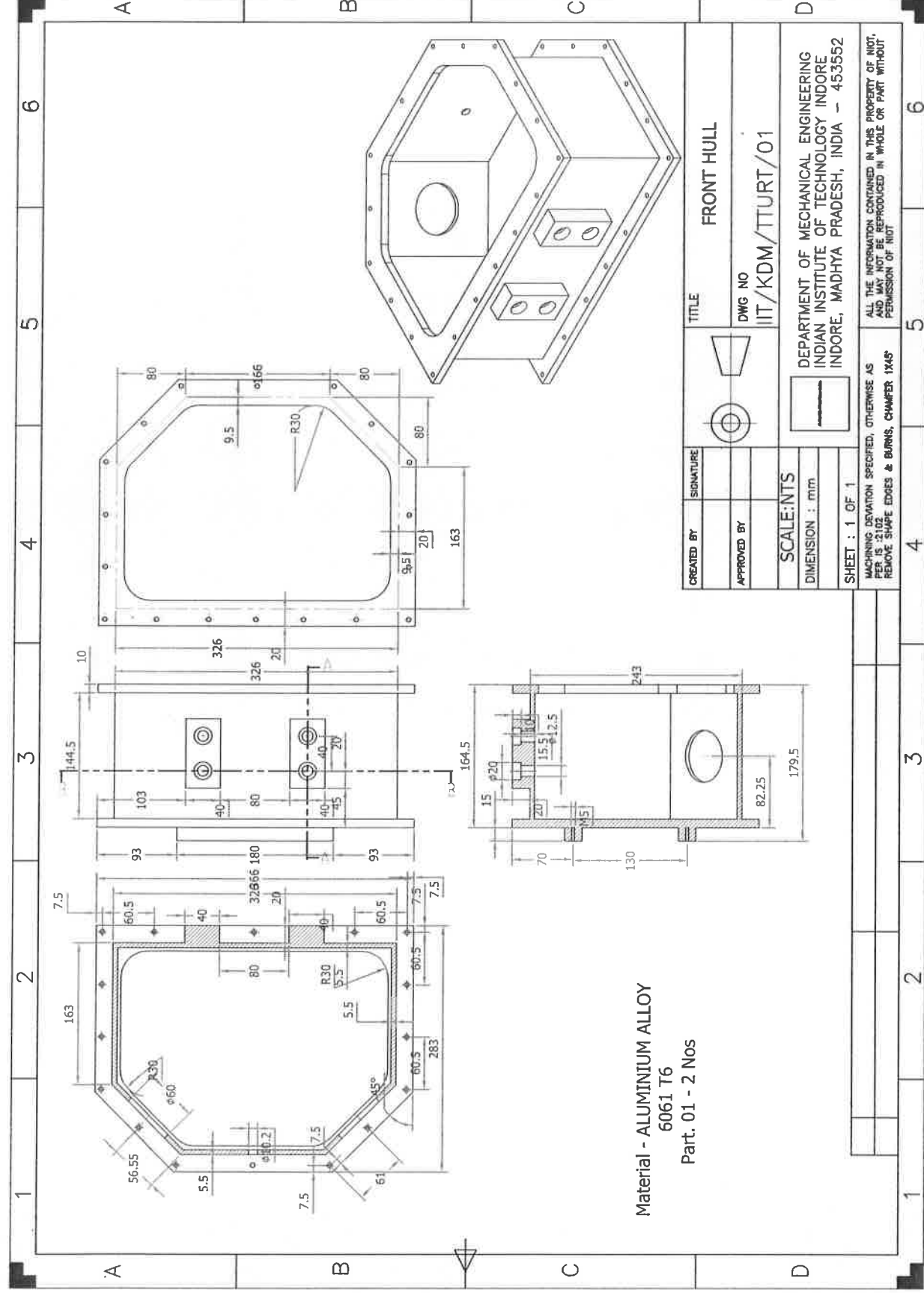
Last date & time of Submission of Online Bids (Technical & Price Bid): December 17, 2019 upto 03:00 PM (IST)

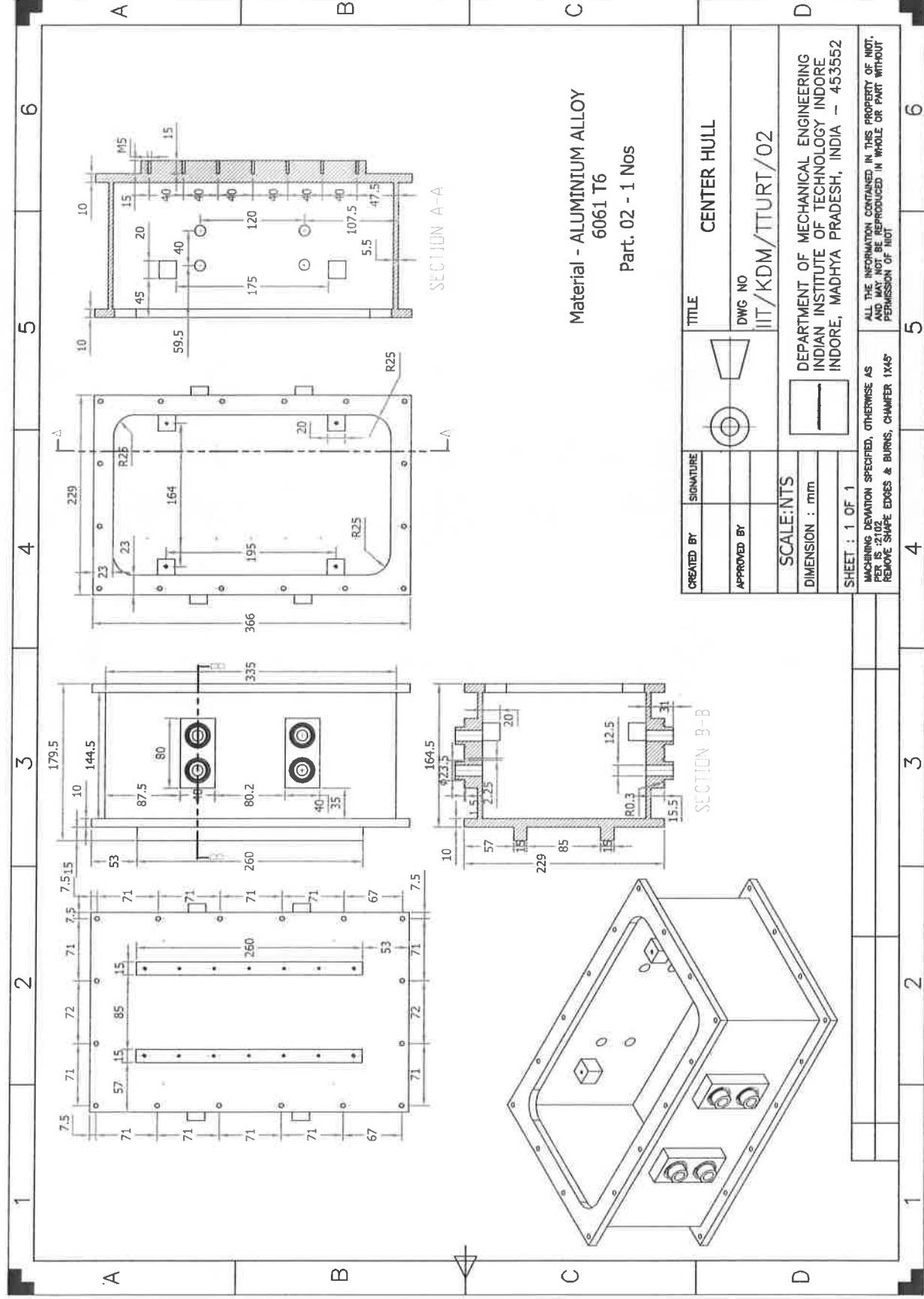
Date and Time of Opening of Technical Bids Online: December 18, 2019 at 03:00 PM (IST)

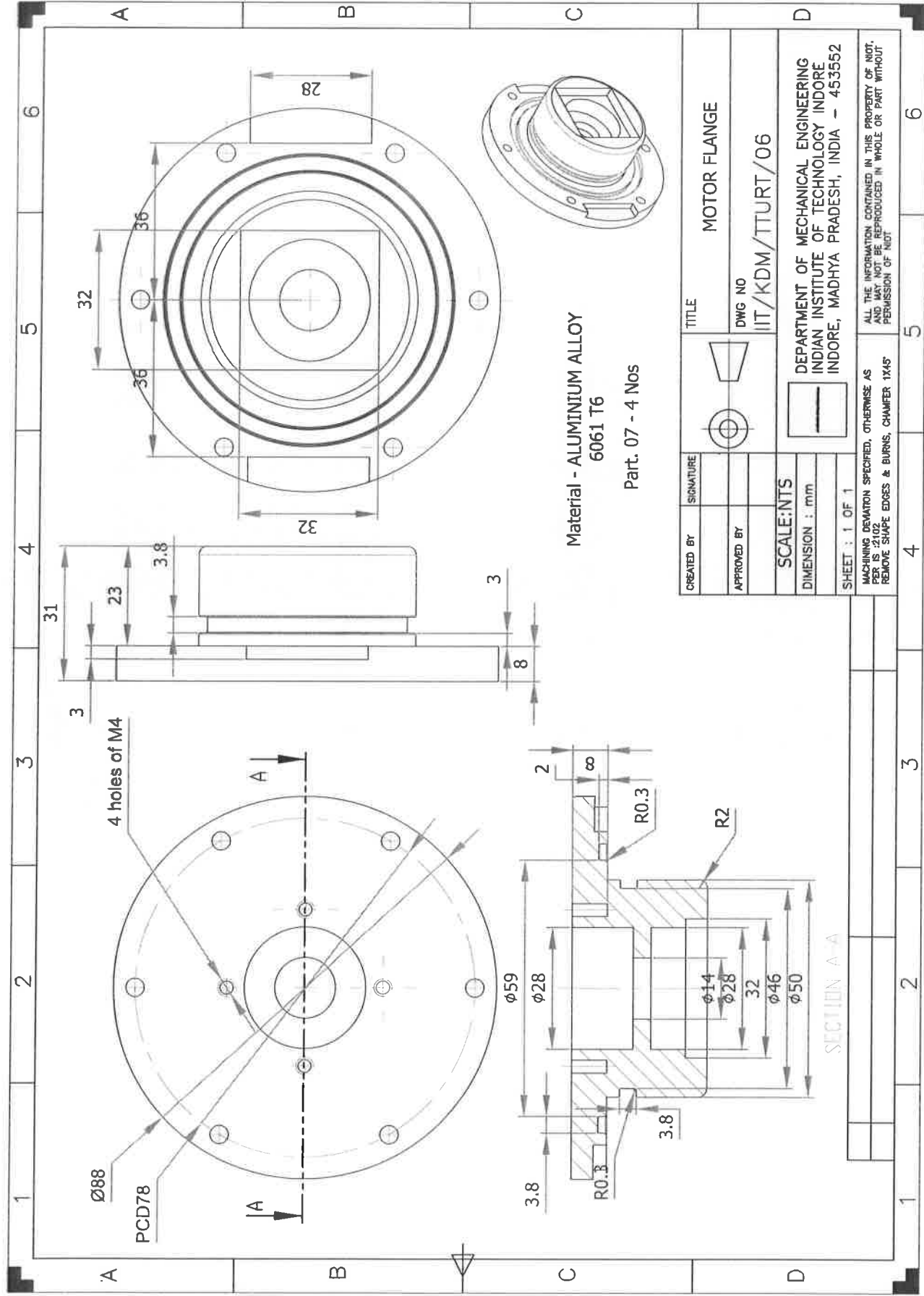
All prospective/willing bidders are requested to take note of this report as part of the Tender document. All other terms and conditions of the tender remain unchanged.

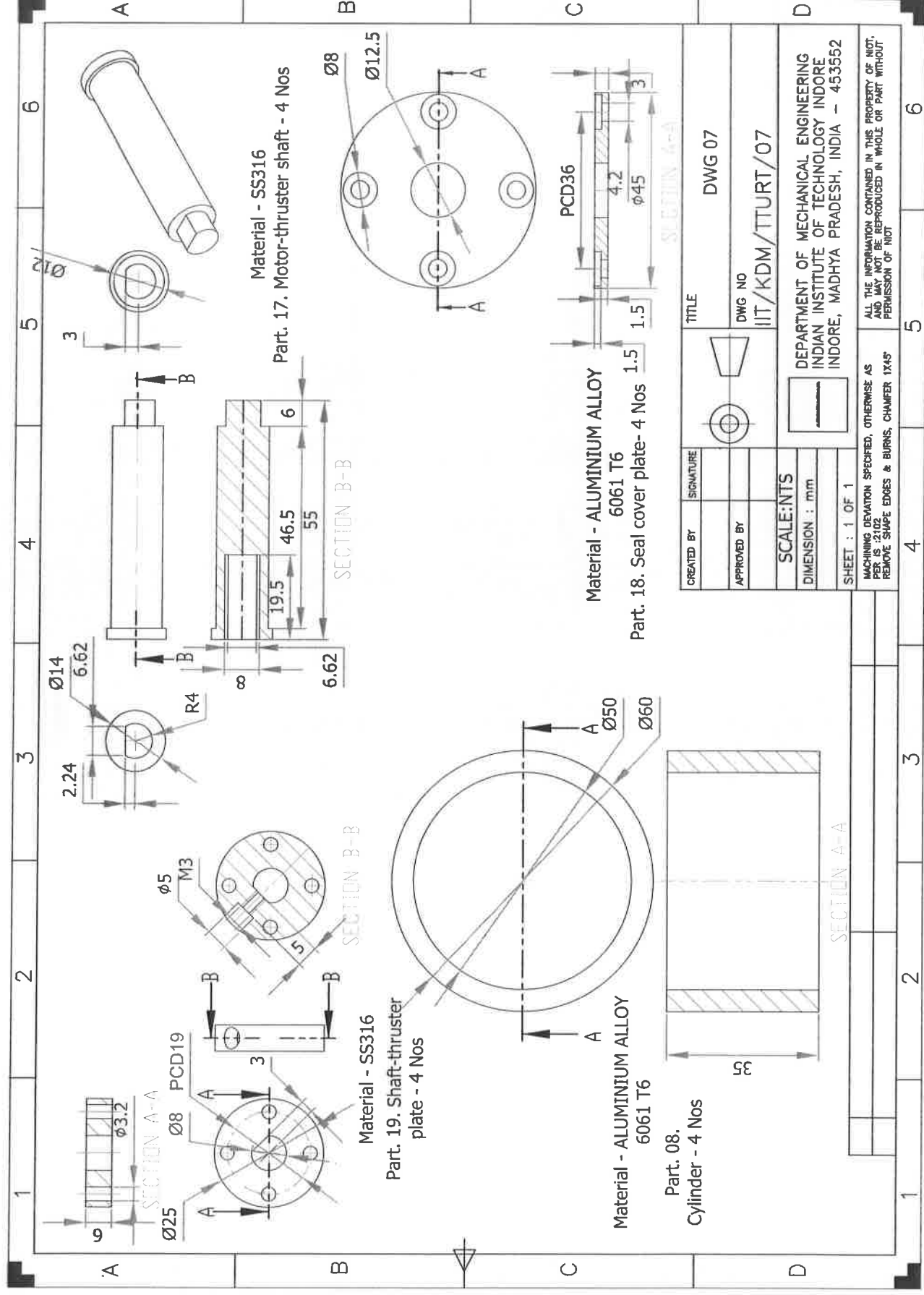
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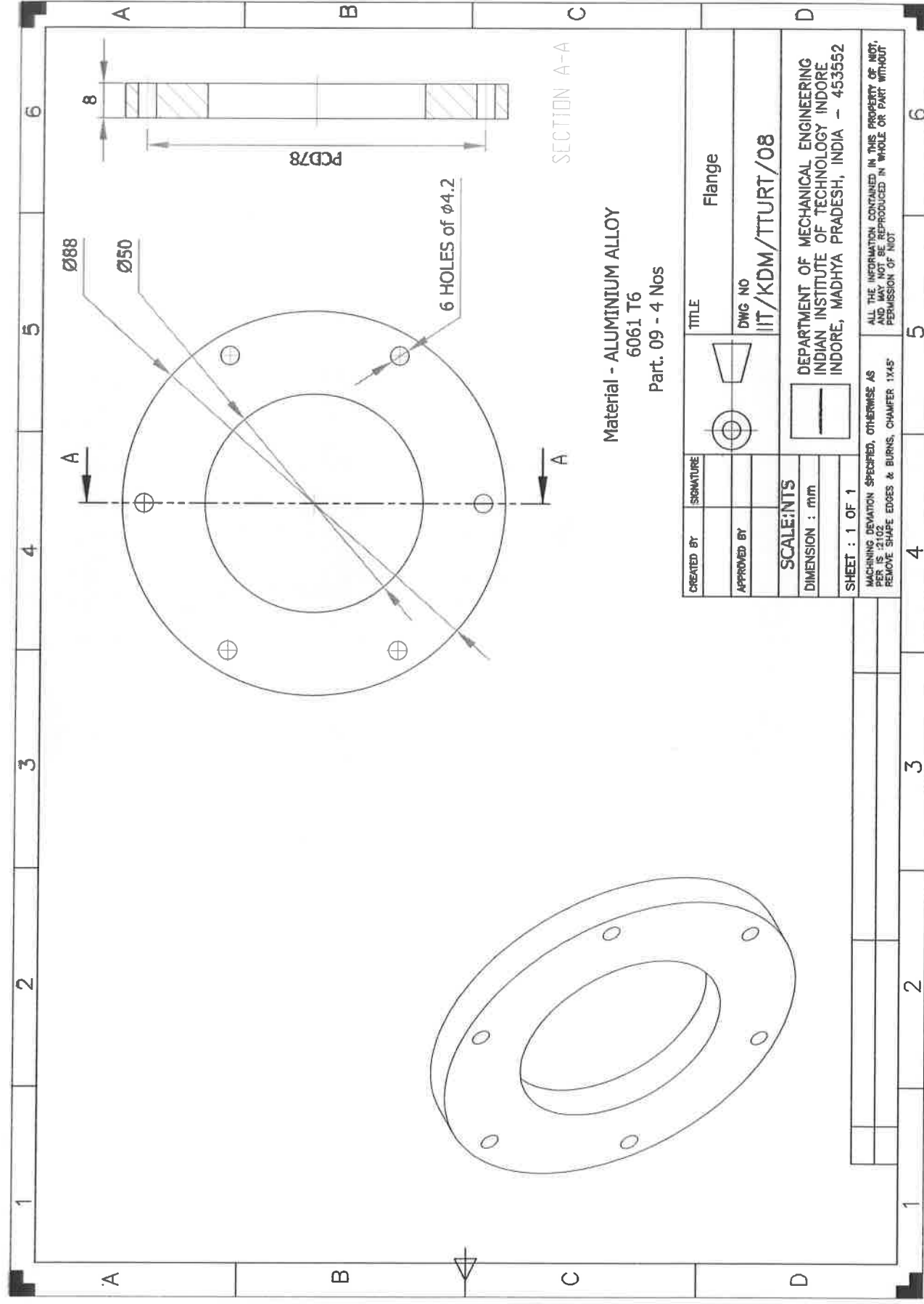
In-Charge
Material Management Section (MMS)
IIT IINDORE



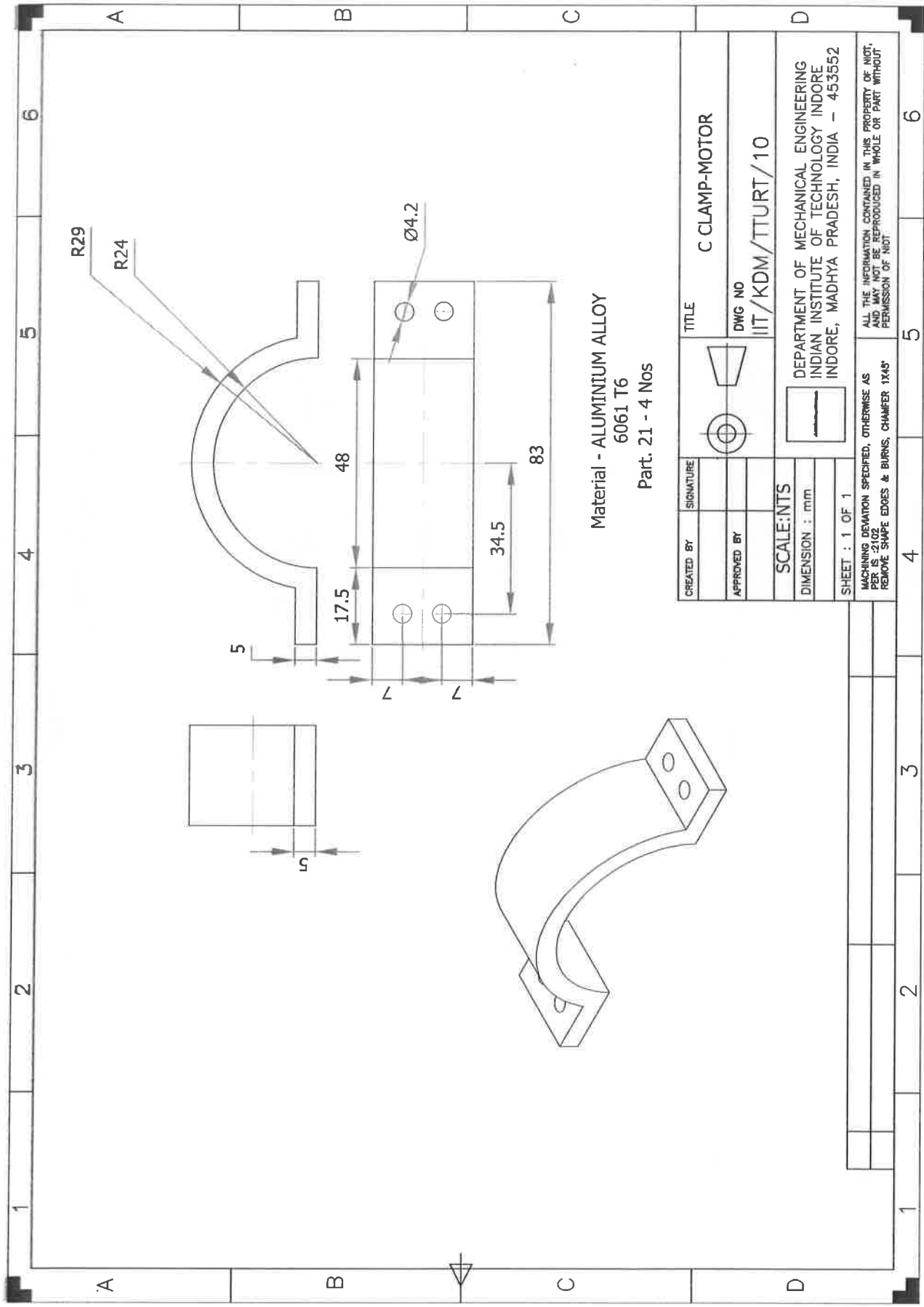






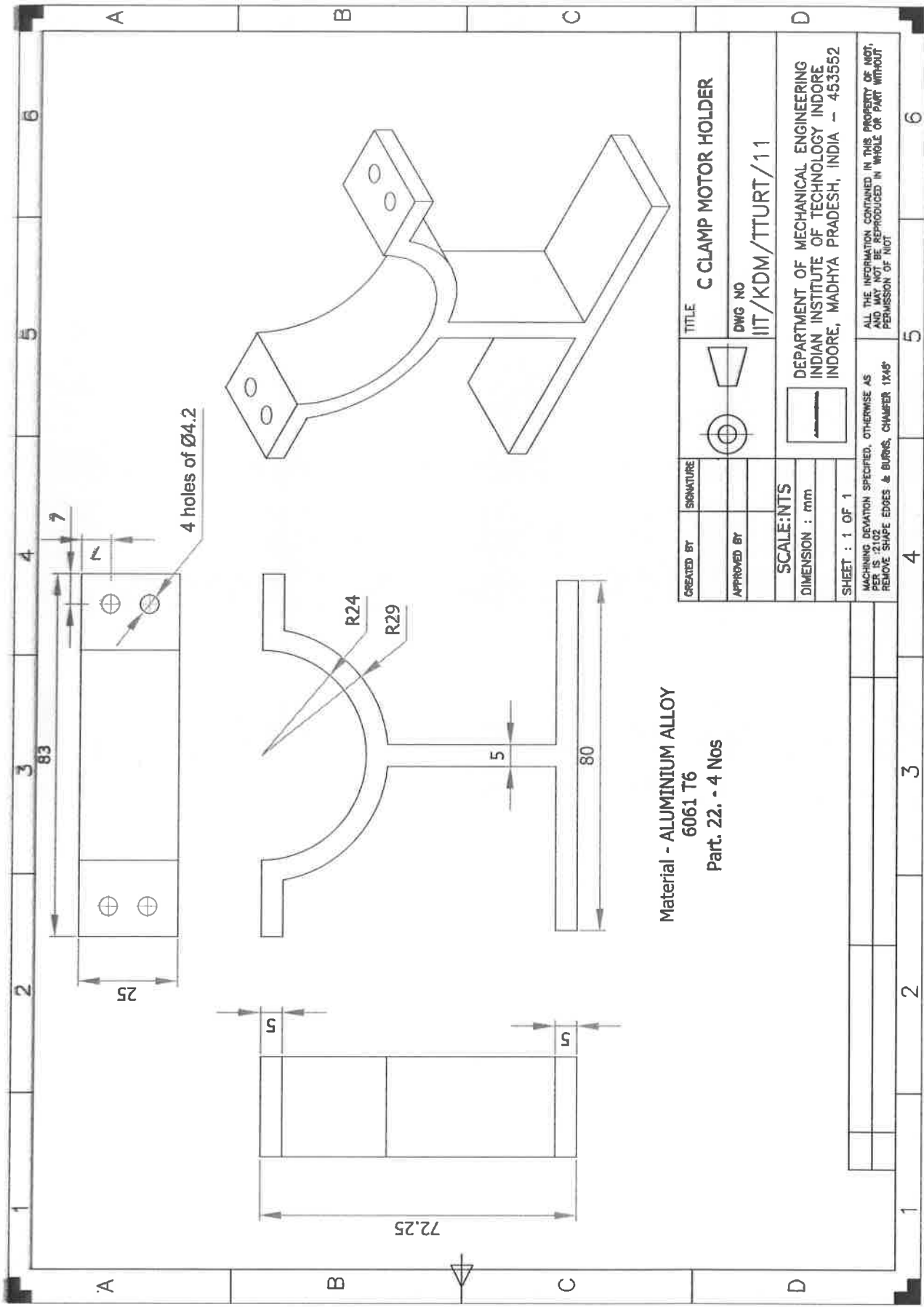


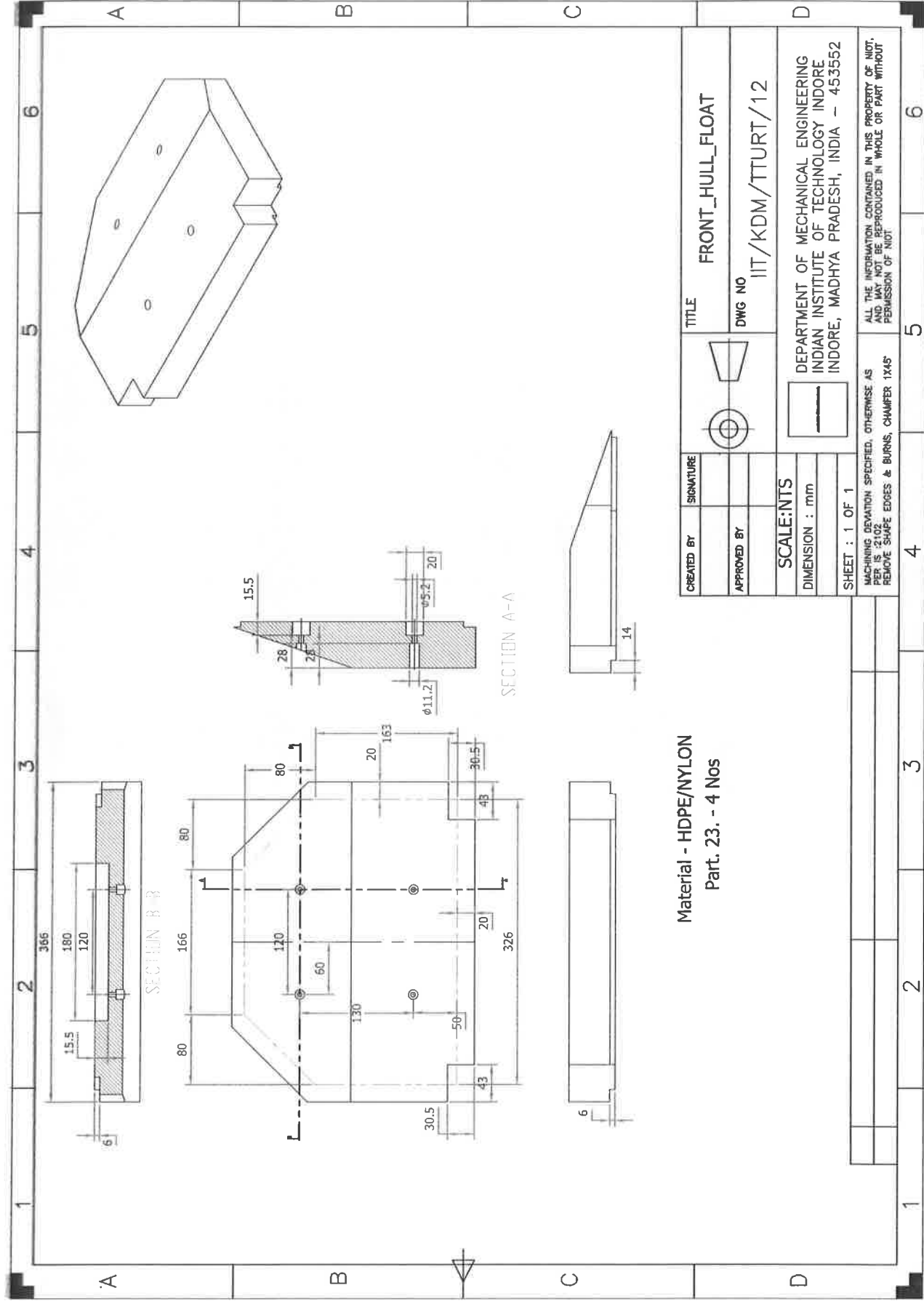
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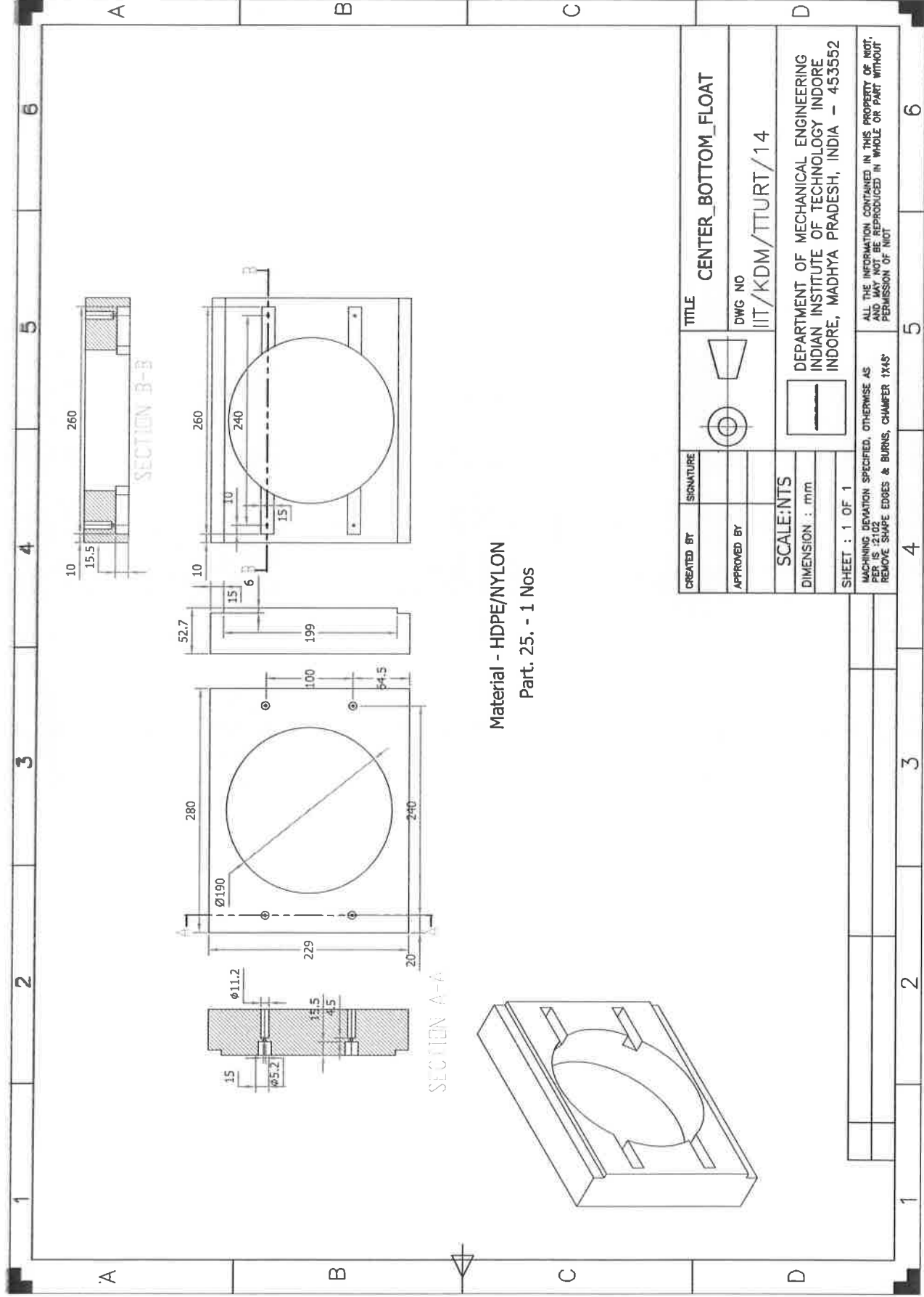


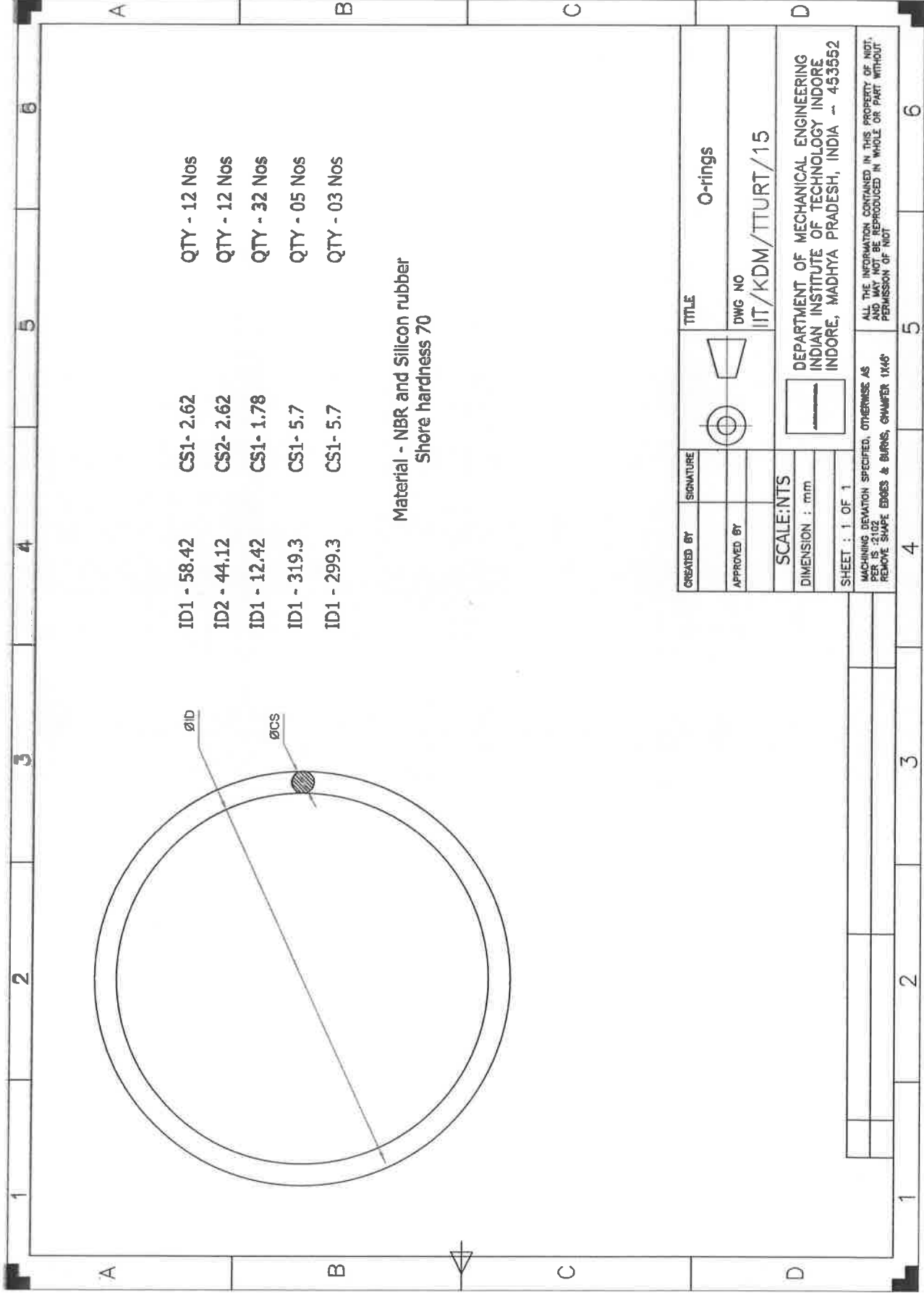
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6061 T6
Part: 21 - 4 Nos

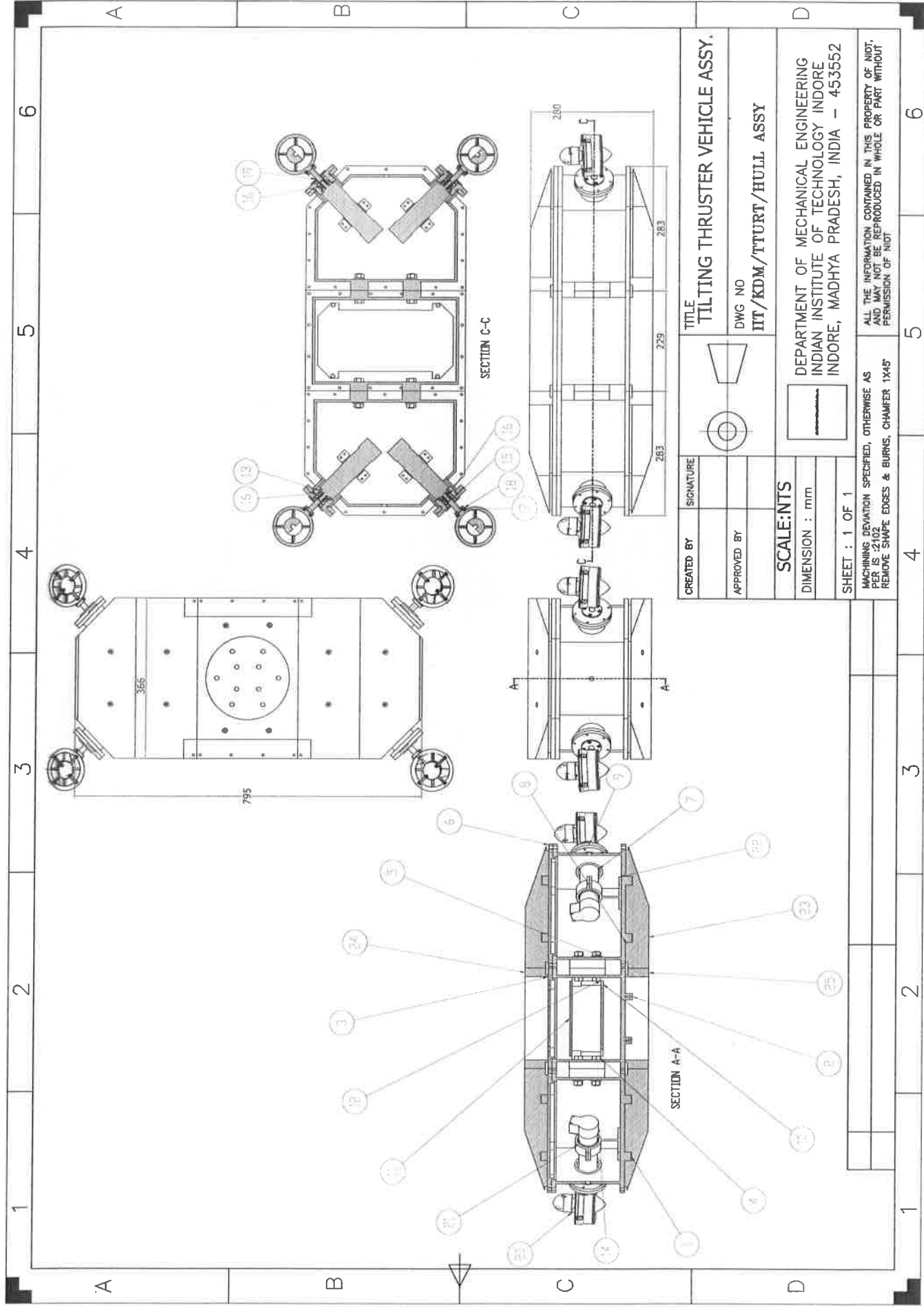
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SHEET : 1 OF 1		
MACHINING DIMENSION SPECIFIED, OTHERWISE AS PER IS 2102		DEPARTMENT OF MECHANICAL ENGINEERING INDIAN INSTITUTE OF TECHNOLOGY INDORE INDORE, MADHYA PRADESH, INDIA - 453552
REMOVE SHAPE EDGES & BURNS, CHAMFER 1X45°		ALL THE INFORMATION CONTAINED IN THIS PROPERTY OF IIT, AND MAY NOT BE REPRODUCED IN WHOLE OR PART WITHOUT PERMISSION OF IIT











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