

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्  
Council of Scientific & Industrial Research  
राष्ट्रीय वांतरिक्ष प्रयोगशालाएं  
National Aerospace Laboratories



CSIR - NAL Estd. 1959  
ISO 9001 : 2015  
Certified Organization

INVITATION FOR BIDS/NIT

Tender No. NAL/PUR/ACD/203/20-Y

Dated: 29-Sep-2020

CSIR- National Aerospace Laboratories (NAL), Bengaluru, India is one of the premier laboratories under Council of Scientific and Industrial Research (CSIR), an autonomous body under Department of Scientific and Industrial Research, Government of India, New Delhi. CSIR-NAL is a Science and Knowledge based Research, Development and Consulting Organization. It is internationally known for its excellence in Scientific Research in Aerospace Engineering.

The Director, CSIR-NAL invites online quotation for procurement of the following item(s) for day to day research work.

Sl.No.	Description of Items	Unit	Quantity
1	CNC Machining of the Aluminium Core Assembly. Please refer Annexure, CAD Model & Drawings for detailed specification.	Set	3

Single / Double Bid	Single
Bid Security (EMD) (in INR)	Bid Security Declaration should be enclosed with quotation
Performance Security	Nil

01. Tender Documents may be downloaded from Central Public Procurement Portal <https://www.etenders.gov.in>. Aspiring Bidders who have not enrolled/ registered in e- procurement should enroll/ register before participating through the website <https://www.etenders.gov.in>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
02. Tenderers can access tender documents on the website (For searching in the NIC site <https://www.etenders.gov.in>, kindly go to Tender Search option, select tender type and select ' Council of Scientific and Industrial Research' in organization tab and select NAL-Bengaluru-CSIR in department type Thereafter, Click on "Search" button to view all CSIR-NAL, Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://www.etenders.gov.in> as per the schedule given in the next page.
03. Either the Indian Agent on behalf of the Foreign principal or the Foreign principal can bid directly in a tender but not both. However, the offer of the Indian Agent should also accompany the authorization letter from their principal. To maintain sanctity of tendering system, one Indian Agent cannot represent two different Foreign principals in one tender.
04. Unsolicited / conditional / unsigned tenders (Quotations) shall not be considered. Quotations received after the due date and time shall be summarily rejected.
05. The Bidder shall comply the terms and conditions of the tender, failing which, the offer shall be liable for rejection.
06. The prospective bidders are requested to refer to the Standard Tender Document available on NAL Internet ([www.nal.res.in](http://www.nal.res.in)) under the icon Tender-Purchase before formulating and submitting their bids
07. The Director, CSIR- National Aerospace Laboratories., Bengaluru reserves the right to accept any or all the tenders either in part or in full or to split the order without assigning any reasons there for.

Raman Kumar  
(Section Officer S&P)

पी बी सं. 1779, एचएएल एयरपोर्ट रोड, कोडिहल्ली, बेंगलुरु - 560 017, भारत,  
P B No 1779, HAL Airport Road, Kodihalli, Bengaluru - 560 017, INDIA  
फोन / Phone : ( का./ Off ) : +91 - 80 - 2508 6040 - 45, फैक्स / FAX : +91-80-2526 9611



<http://www.nal.res.in>



[purchasek@nal.res.in](mailto:purchasek@nal.res.in)



NAL/PUR/ACD/203/20-Y

Annexure

Item No	Item Description	Qty
1	<p>Machining of the Aluminium Core faces as per the CAD Model and Drawing supplied by NAL.</p> <p><b>I. Scope of NAL</b></p> <p>1. NAL will supply the CAD Models (in CD) &amp; Hard copy of the Drawings,</p> <p>a. Aluminum core assembly with CFC mould - 1<sup>st</sup> set machining Dwg No: ACD-3710T (<b>Refer Annexure-2</b>)</p> <p>b. Aluminum core assembly with CFC mould - 2<sup>nd</sup> set machining Dwg No: ACD-3620T (<b>Refer Annexure-3</b>)</p> <p>c. Aluminum core assembly with CFC mould- 3<sup>rd</sup> set machining Dwg No: ACD-3430T (<b>Refer Annexure-4</b>)</p> <p>The above 3 types of aluminium core assembly with CFC mould will be supplied one by one for machining</p> <p>2. NAL will supply the Aluminum cores assembly with CFC mould in the assembled condition as per drawing.</p> <p>3. NAL representative will Inspect the job set up at vendor's facility before starting the machining activity.</p> <p>4. NAL representatives will do the Inspection at Vendor's place after completion of the machining.</p> <p><b>II. Scope of Vendor</b></p> <p><b>1. Details &amp; Requirements regarding the Machining</b></p> <p>a. Aluminum core assembly with CFC mould- 1<sup>st</sup> set machining Dwg No: ACD-3710T (<b>Refer Annexure-2</b>)</p> <p>b. Aluminum core assembly with CFC mould - 2<sup>nd</sup> set machining Dwg No: ACD-3620T (<b>Refer Annexure-3</b>)</p> <p>c. Aluminum core assembly with CFC mould- 3<sup>rd</sup> set machining Dwg No: ACD-3430T (<b>Refer Annexure-4</b>)</p> <p>d. Before start the machining, Vendor should level the Aluminum core assembly with CFC Mould in one level using datum pads provided on CFC Mould within <math>\pm 0.2</math> mm accuracy. The above process needs to</p>	3 sets

NAL/PUR/ACD/203/20-Y

Annexure

	<p>be carried out in presence of NAL representative. NAL's acceptance is needed before starting the machining</p> <ul style="list-style-type: none"><li>e. Vendor should do proper clamping of Aluminum core assembly with mould to machine bed before machining activity</li><li>f. CFC Mould is having the Tooling Reference holes (2 Nos) and the Aluminum core face machining to be done with respect to these Tooling hole references.</li><li>g. Core machining should be completed in one set up. Once machining started, aluminum core assembly with CFC Mould should not be removed from the machine bed and it should be removed only after completion of machining and inspection.</li><li>h. Vendor should give prior intimation to NAL at least two days in advance for inspection of machined aluminum core assembly with CFC mould</li><li>i. Vendor should give electrical supply for connecting vacuum pumps to the job.</li><li>j. Vendor should permit the presence of NAL representative during machining operations</li><li>k. Vendor should take care to minimize the spilling of coolant or lubricant oil on CFC mould during machining</li><li>l. Vendor should return the CD containing CAD model and drawings after successful completion of the job.</li></ul> <p><b>2. Details &amp; Requirements regarding the Inspection &amp; Acceptance</b></p> <ul style="list-style-type: none"><li>a. The machining surfaces to be inspected by the vendor frequently to get accuracy within drawing tolerance limits.</li><li>b. NAL representatives will do the Inspection at Vendor's place and after NAL representative's acceptance, the machined aluminum core assembly with CFC Mould to be delivered to NAL stores.</li><li>c. Acceptance test plan (ATP) is as per drawing requirements (Refer drawings i.e 1.a, 1.b &amp; 1.c)</li></ul>	
--	---	--



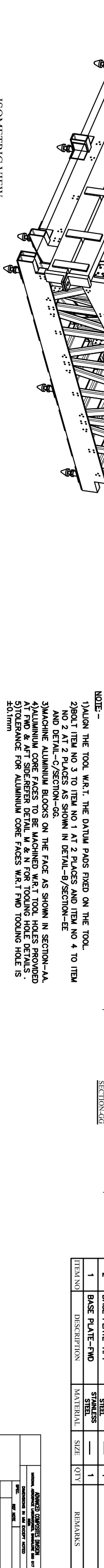
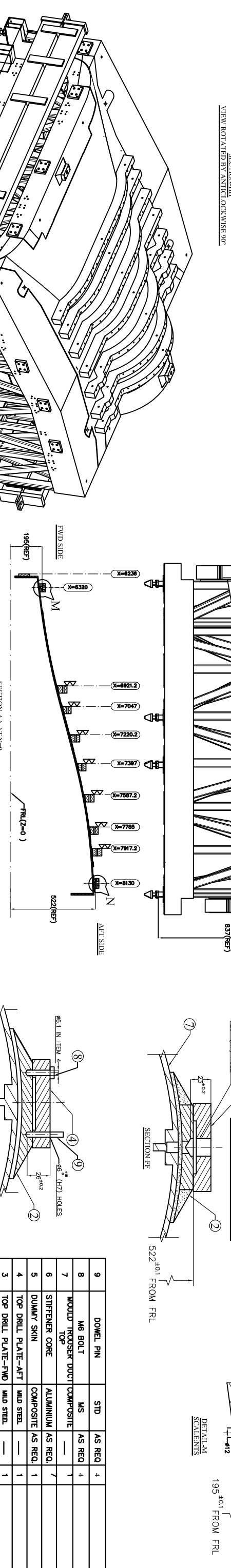
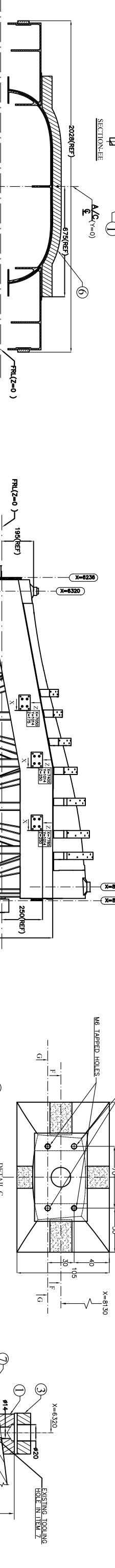
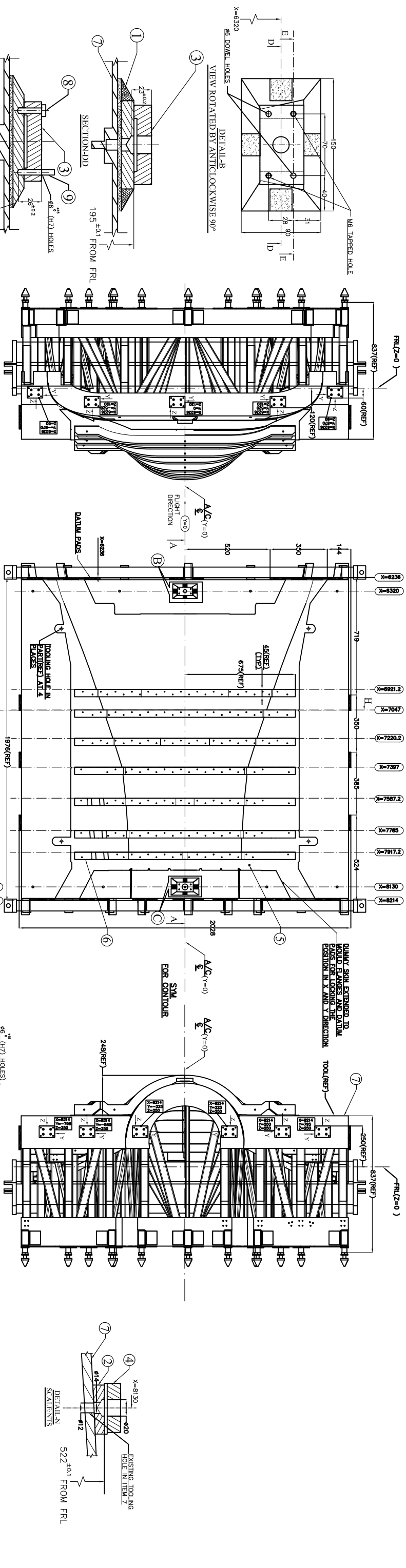
NAL/PUR/ACD/203/20-Y

Annexure

	<p><b>3. Details &amp; Requirements regarding the Transit Movement</b></p> <p>a. Transit Movement of the Aluminum core assembly with CFC Mould from NAL to Vendor location is NAL's responsibility.</p> <p>b. After acceptance of the machining by NAL representative, movement of the Aluminum core assembly with CFC mould from vendor location to NAL is NAL responsibility.</p> <p>c. Loading and unloading of Aluminum core assembly with CFC mould from vehicle at vendor location is vendor's responsibility</p> <p><b>4. General Instructions and Requirements</b></p> <p>a. Vendor should ensure that the NAL supplied CFC Mould should not get damaged during transit, storage and machining.</p> <p>b. Vendor can visit NAL to evaluate the Aluminum cores assembly with CFC Moulds to get an idea before submitting the Quote.</p> <p>c. Vendor should give the assurance that the NAL supplied CAD model and drawings will not be misused other than NAL purpose.</p> <p>d. In the quote, Vendor should comply for all the instructions.</p> <p><b>5. Instructions related to the Delivery schedule</b></p> <p>a. Vendor should deliver the machined set to NAL Kodihalli stores, within 20 days on receipt aluminum core assembly with mould.</p>	
--	---	--







NOTE:-  
1)ALIGN THE TOOL W.R.T. THE DATUM PADS FIXED ON THE TOOL.  
2)BOLT ITEM NO 3 TO ITEM NO 1 AT 2 PLACES AND ITEM NO 4 TO ITEM NO 2 AT 2 PLACES AS SHOWN IN DETAIL-B/SECTION-EE AND DETAIL-C/SECTION-GG.  
3)MACHINE ALUMINIUM BLOCKS ON THE FACE AS SHOWN IN SECTION-AA.  
4)ALUMINIUM CORE FACES TO BE MACHINED W.R.T TOOL HOLES PROVIDED AT FWD & AFT SIDE REFER DETAIL M & N FOR TOOLING HOLE DETAILS.  
5)TOLERANCE FOR ALUMINIUM CORE FACES W.R.T FWD TOOLING HOLE IS  $\pm 0.1mm$

ITEM NO	DESCRIPTION	MATERIAL	SIZE	QTY	REMARKS
9	DOWEL PIN	STD	AS REQ	4	
8	M6 BOLT	MS	AS REQ	4	
7	MOULD TROUSER DUCT TOP	COMPOSITE	—	1	
6	STIFFENER CORE	ALUMINIUM AS REQ.	—	1	
5	DUMMY SKIN	COMPOSITE AS REQ.	—	1	
4	TOP DRILL PLATE-AFT	MILD STEEL	—	1	
3	TOP DRILL PLATE-FWD	MILD STEEL	—	1	
2	BASE PLATE-AFT	STAINLESS STEEL	—	1	
1	BASE PLATE-FWD	STAINLESS STEEL	—	1	





**BID-SECURING DECLARATION FORM**

Date: \_\_\_\_\_

Bid No. \_\_\_\_\_

To (insert complete name and address of the purchaser)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that I/We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

(a)	have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
(b)	having been notified of the acceptance of our Bid by the purchaser during the period of bid validity
	(i) fail or refuse to execute the contract, if required, or
	(ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown)  
in the capacity of (insert legal capacity of person signing the Bid Securing Declaration).

Name: (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of: (insert complete name of Bidder)

Dated on \_\_\_\_\_ day of \_\_\_\_\_ (insert date of signing)

Corporate Seal (where appropriate)

Note:

1. In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.
2. Bid Security declaration must be signed in by the Proprietor/CEO/MD or equivalent level of Officer of the company.