

**Partha Sarathi Dash**

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**From:** Partha Sarathi Dash <parthasd@bhel.in>  
**Sent:** Tuesday, 12 August, 2025 02:32 PM  
**To:** 'Partha Sarathi Dash(Engineer/9750\_L&D/BAP)'  
**Cc:** Mallikarjun Nayak(Manager/U APH & FANS/BAP); 'Santosh Kumar'; 'regisregon@bhel.in'; 'Ramesh V'  
**Subject:** Email enquiry for Supply of the IMPELLER WITH HUB FOR COOLING/SEALING AIR FAN OF ID FAN as per Drawing No. DRG NO.- 2-55-024-02012 - reg.  
**Attachments:** TENDER DOC.pdf

Sir,  
Supply of the **IMPELLER WITH HUB FOR COOLING/SEALING AIR FAN OF ID FAN as per BHEL Drawing No. DRG NO.- 2-55-024-02012** is required at BHEL BAP Ranipet, a tender **(single tender and single part bid basis)** has been floated and the tender documents are attached herewith. Kindly go through the tender details and submit your best offer through email at the earliest. Attached tender document and commercial terms form to be submitted with filled, signed and sealed.

**Regards,**  
**Partha Sarathi Dash**  
**Senior Engineer/Purchase**  
**BHEL BAP Ranipet**  
**Mob: 9843468211**  
**Office No. 04172284133**

**SCOPE OF SUPPLY**  
**ITEMS TO BE SUPPLIED IN THIS BID**

Bidder to sign and stamp all pages in this document and upload, as an agreement to supply each of below items.

Sl. No.	Description	Unit	Qty.	Destination	Delivery period
1.	IMPELLER WITH HUB FOR COOLING/SEALING AIR FAN OF ID FAN as per Drawing No. DRG NO.- 2-55-024-02012 Material code: 119235599701001	NO	1	BHEL/BAP STORE/RANIPET	45 days from the date of PO.

**Scope of supply:** Offer from M/s. NADI AIR TECHNICS Pvt. Ltd. CHENNAI only will be considered for this tender.

**Note:** Quality Requirements – SQP & BHEL Drawing are attached. BHEL SQP is to be followed.

**Tender:** Single Tender and single-part bid basis.

**Delivery Terms:** FOR destination

**Destination:** Manager, STORES, BHEL BAP RANIPET- 632406, TN

**Documents to be submitted along with the offer:**


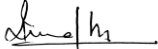

- 1) Technical bid and Price bid
- 2) Commercial Terms Form with filled & signed (Attached).
- 3) GSTN Certificate.
- 4) PAN details.
- 5) Udyam Certificate.


**Certificates Required:**

- 1) Guarantee certificate.
- 2) Test Certificate

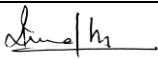

**Sign & Stamp of bidder**

(By signing this I/We agree to follow all technical documents and drawings applicable for these above items and tender in total)

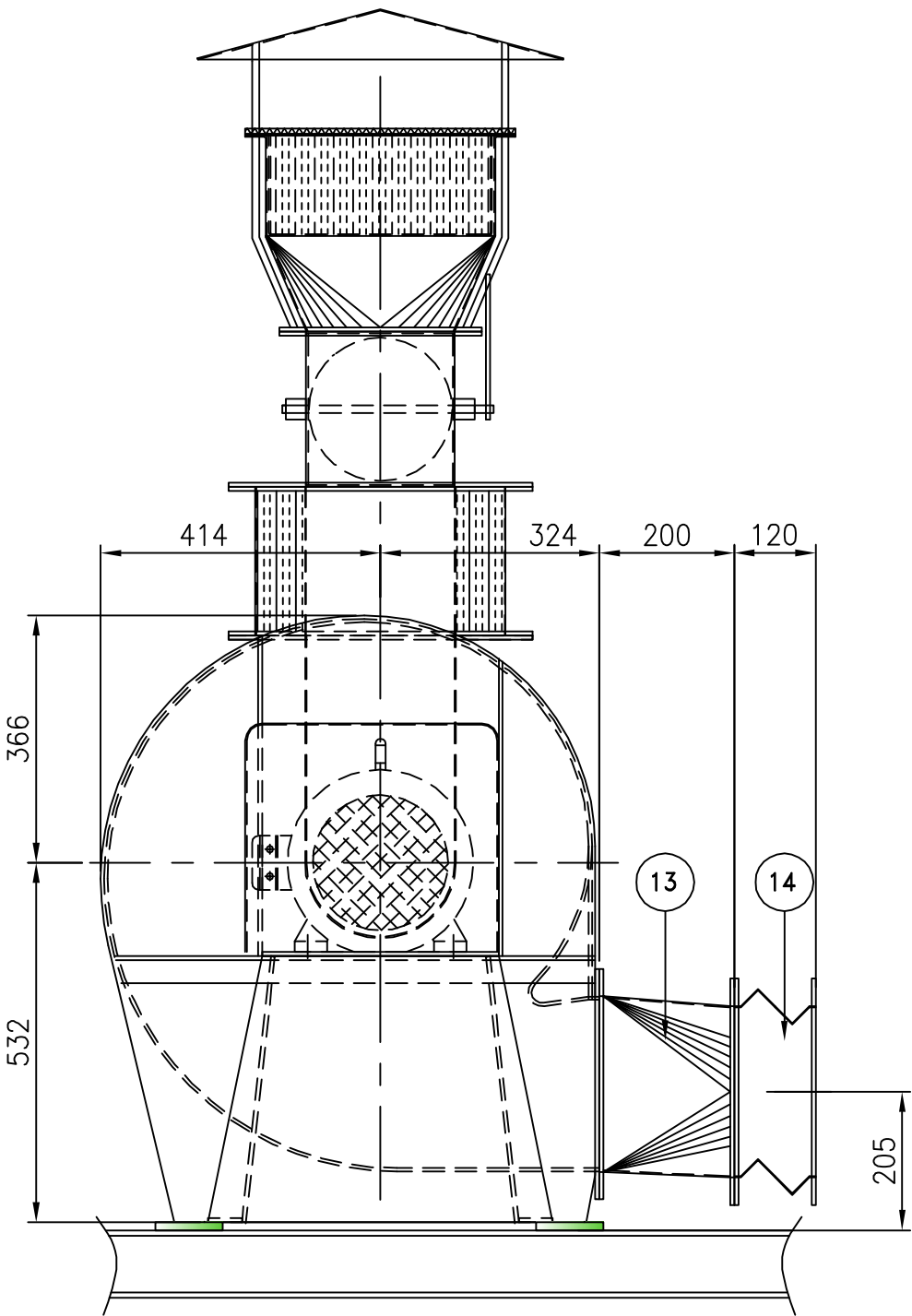
 <b>Ranipet</b>		<b>MANUFACTURER'S NAME &amp; ADDRESS</b> <b>M/S BHEL: BAP: RANIPET</b> <b>TAMIL NADU-632 406</b>		<b>MANUFACTURING QUALITY PLAN</b>		<b>PROJECT: STANDARD</b>  <b>CONTRACT:</b> <span style="border: 1px solid red; padding: 2px;">Applicable clauses for spare order to be followed.</span>					
				Item/subsystem:  <b>SEALING/COOLING AIR FAN</b>	QP: No: <b>SQP:397</b> Rev No: <b>00</b> Date: <b>03.12.2019</b> Page: <b>1 Of 2</b>						
SL NO 1	COMPONENT & OPERATION 2	CHARACTERISTICS 3	TYPE OF CHECK 4	QUANTUM OF CHECK 5	REFERENCE DOCUMENTS 6	ACCEPTANCE NORMS 7	FORMAT OF RECORD 8	Agency 9			REMARKS 10
								M	B	N	
1.0	<b>RAW MATERIALS</b>	CHEMICAL & MECHANICAL PROPERTIES	CHEM & TENSILE	EACH HEAT	RESPECTIVE MATERIAL SPEC	TC	P	V	-		# Plates of thickness more than 40 mm and Roundness of dia more than 50 mm shall be UT tested.
1.1	CASING, IMPELLER PLATES										
2.0	<b>INPROCESS INSPECTION</b>										
2.1	IMPELLER WELDS	SOUNDNESS	PT	100%	ASME SEC V	REPORT	P	V	-		
2.1.2	DIMENSIONAL INSPECTION	IMPELLER DIMENSIONS	MEASUREMENT	100%	DRAWING	REPORT	P	V	-		
3.0	<b>DYNAMIC BALANCING</b>										
3.1	ROTOR BALANCING	RESIDUAL UNBALANCEMENT	UNBALANCE COMPENSATION	100%	DRAWING	DR	P	W	-		
3.2	MOTOR	ROUTINE TEST	VERIFICATION OF TEST REPORT OF MOTOR SUPPLIER.	100%	IS-325/IEC60034-1	MTC	P	V	-		
4.0	ASSEMBLED FAN INSPECTION & TESTING	PERFORMANCE TEST	VOLUME, EFFICIENCY, POWER, VIBRATION, BEARING TEMP, NOISE LEVEL	ONE PER MODEL	SPEC/APPD DRAWING/DATA SHEET	REPORT	P	W	-		
5.0	<b>FINAL INSPECTION</b>										
5.1	IDENTIFICATION, PAINTING & PRESRVATION	COMPLIANCE TO COMPANY STANDARD	VISUAL	100%	AS PER PROJECT SPECIFIC APPD PAINTING SCHEME	--	P	V	-		
M - Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency, P - perform, MTC: Manufacturer Test Certificate. V - Verification of reports W - Witness, TC - Test certificate DR - Dimensional report. N-Witness			<b>Prepared BY</b>			<b>Reviewed &amp; Approved by</b>					
											
			Rakesh Kr Madhu(SE/QA)			K C Gandhiparimalam (DGM/QA)					

 Ranipet	MANUFACTURER'S NAME & ADDRESS <b>M/S BHEL: BAP:</b> <b>RANIPET</b> <b>TAMIL NADU-632 406</b>	<b>MANUFACTURING QUALITY PLAN</b>		PROJECT: <b>STANDARD</b>  CONTRACT: <b>BHEL, BAP-RANIPET</b>							
		Item/subsystem:  <b>SEALING/COOLING AIR FAN</b>	QP: No: <b>SQP:397</b> Rev No: <b>00</b> Date: <b>03.12.2019</b> Page: <b>2 Of 2</b>								
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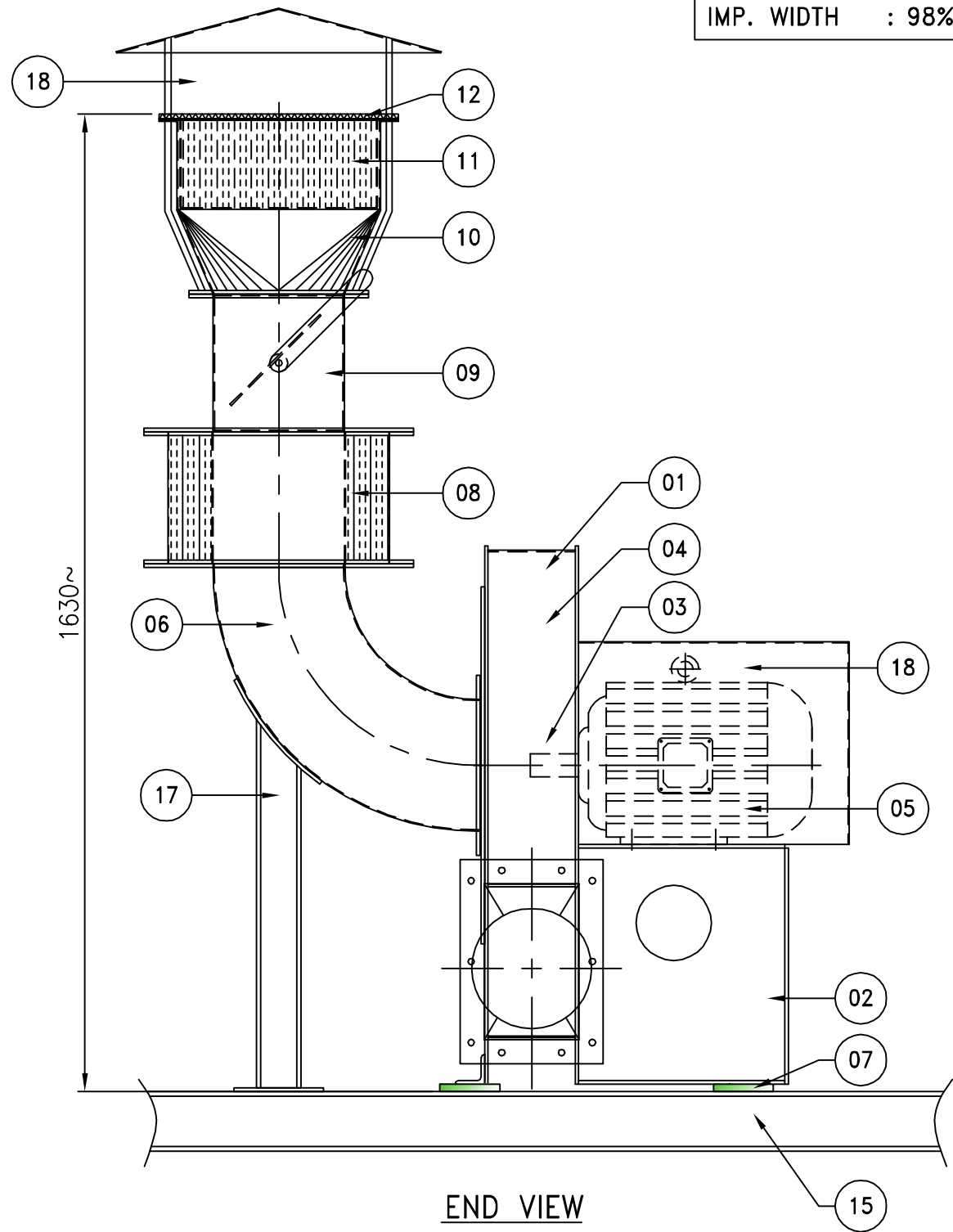
Rev	Date of Issue	Change Made
00	03.12.2019	First Submission

M - Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency, P - perform, MTC: Manufacturer Test Certificate. V - Verification of reports W - Witness, TC - Test certificate DR - Dimensional report. N-Witness	<b>Prepared BY</b>	<b>Reviewed &amp; Approved by</b>
		
	Rakesh Kr Madhu(SE/QA)	K C Gandhiparimalam (DGM/QA)

A  
B  
C  
D  
E  
F



ELEVATION



END VIEW

IMP. DIAMETER : 100%  
IMP. WIDTH : 98%

- NOTES :
1. THE NOISE LEVEL & VIBRATION SPECIFIED (IF ANY) IS MEASURED AT OUR FACTORY BUT MAY VARY UNDER SITE CONDITIONS AND CANNOT BE GUARANTEED (UOS).
  2. THE TOLERANCES FOR RUN OUT / FACE OUT / CONCENTRICITY / ECCENTRICITY AND GAPS BETWEEN ROTATING AND STATIC PARTS WILL BE AS PER OUR INTERNAL DESIGN STANDARDS (UOS) AND SHALL BE ULTIMATELY VALIDATED BY FAN VIBRATION AND AIR PERFORMANCE RESULTS.
  3. HIGH PRESSURE FANS MUST BE STARTED WITH THE INLET OR OUTLET IN CLOSED CONDITION.
  4. ANY MODIFICATION/ABRUPT CHANGE IN CROSS-SECTIONAL AREA AT THE FAN INLET OR OUTLET WILL HAVE AN EFFECT ON FAN PERFORMANCE
  5. INLET CONES ARE SPUN COMPONENTS, BUT THEY MAY HAVE JOINTS.
  6. FAN ARE NOT 100% LEAK PROOF AS THEY ARE FABRICATED
  7. IGV DAMPERS ARE USED FOR FLOW CONTROL – THEY ARE NOT SHUT OFF DAMPERS
  8. VIBRATION ISOLATORS(FLEXIBLE MOUNTINGS) ARE NOT RECOMMENDED FOR FAN THAT WILL BE RUN AT DIFFERENT FREQUENCIES USING VFD. AT LOWER FREQUENCIES OF OPERATION (USING VFD) THE ISOLATORS WILL RESPOND DIFFERENTLY CAUSING UPTO 50% INCREASE IN VIBRATION MEASURED ON FAN AND/OR MOTOR.
  9. FASTERNERS FOR ROTATING PARTS – HTS GRADE 8.8 OR 10.9

THIS DRAWING IS TO BE READ ALONG WITH DWG NO. 2-55-024-02013,  
& 2-55-024-02014.


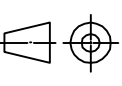
TECHNICAL SPECIFICATION :

1	MEDIUM	: CLEAN AIR
2	ALTITUDE CONSIDERED	: MEAN SEA LEVEL
3	OPERATING TEMP.	: 10 to 50 DEG.C
4	VOLUME FLOW	: 3600 CMH
5	ST. Pr. @ OPT. CONDITION	: 362 mm WGP
6	ST. Pr. @ 20°C @ MSL	: 350 mm WGP
7	NOMINAL FAN SPEED	: 2900 RPM
8	MAXIMUM FAN SPEED	: – RPM
9	BkW @ 20°C @ MSL	: 5.17 kW
10	MOTOR RECOMMENDED	: 7.5kW/2P; TEFV/TEFC, FOOT MOUNTED
11	MOTOR SPEED / FRAME SIZE	: 2900 RPM / 132 S
12	SURFACE TREATMENT	: GRIT BLASTING
13	PAINT	: AS PER BHEL SPECIFICATION
14	STATIC WEIGHT WITH MOTOR	: 500~ Kg.
15	DYNAMIC WEIGHT WITH MOTOR	: 700~ Kg.

Motor kW recommended is based on COLD START (U.O.S)  
Tolerance for fan performance reference STD IS – 4894.  
Volume Flow : – 05% ; Static / total efficiency : – 05%  
Total power input : + 10% ; Speed : ± 10%  
The performance may vary at site due to system effects  
U.O.S dimensions tolerance as per is 2102 (Part1) : 1993 Class V.  
U.O.S. Vibration is measured on the housing of the fan bearing (in vertical, axial and horizontal direction) within the max. permissible limits of ISO-14694:2003 (E)  
Fan application category : BV-3 as mentioned below  
**TYPE OF MOUNTING**  
CONCRETE MOUNTING :- 4.5 mm/SEC VRMS  
OTHER MOUNTINGS :- 6.3 mm/SEC VRMS  
For direct driven fans, these readings will be measured on the motor housing.

ALL DIMENSIONS ARE IN MILLIMETRES  
FOR PRODUCTION  
REF. PR:QA:590 FOR PAINTING  
REF. PR:QA:500 FOR UNTOL. DIMNS.  
REF. APPLICABLE GMS FOR MATCODE&SPEC.

20	–	–	–	–
19	–	–	–	–
18	RAIN HOOD (MOTOR & FILTER)	M.S	NADI	1
17	INLET SUPPORT	M.S	NADI	1
16	FOUNDATION BOLTS (M12x300 Long)	HTS	NADI	13
15	COMMON BASE FRAME FOR TWO FANS	M.S	NADI	1
14	OUTLET FLEXIBLE CONNECTION	M.S	NADI	1
13	OUTLET TRANSITION	M.S	NADI	1
12	INLET BIRD SCREEN	M.S	NADI	1
11	INLET FILTER	M.S	NADI	1
10	INLET FILTER BOX	M.S	NADI	1
9	INLET DAMPER	M.S	NADI	1
8	INLET SILENCER	M.S	NADI	1
7	ANTI VIBRATION PADS	RUBBER	NADI	4
6	INLET BEND (Sch-20)	M.S	NADI	1
5	MOTOR	STD	NADI	1
4	IMPELLER	M.S	NADI	1
3	HUB	M.S/C.I	NADI	1
2	PEDESTAL	M.S	NADI	1
1	CASING	M.S	NADI	1
PART NO.	DESCRIPTION	M.O.C	SCOPE	QTY.

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		SURATGARH STPS 2x660 MW				
	 BHARAT HEAVY ELECTRICALS LTD., UNIT: BOILER AUXILIARIES PLANT, RANIPET – 632 406.		DRN	NAME VIKS	SIGN	DATE 03.02.15	NO.OF VAR.
	DEPT FANS		GRADE OF UNTOL.DIM	SCALE	WEIGHT (KG).	APPD P.SAHA	REF. TO ASSY/OLD DRG. NADI Technologies Pvt. Ltd. NADI CFP-14-11-1107 SHEET 01/03
	CODE 864	PR: QA: 500				ITEM NO.	NO. OF ITEMS
	TITLE G.A. DRG. OF COOLING/SEALING AIR FAN FOR ID FAN		CARD CODE U 01	DRAWING NO. 2-55-024-02012		REV	

**ANNEXURE –“A”**  
**ENQUIRY No. IMPELLER WITH HUB FOR C/S AIR FAN**  
**COMMERCIAL TERMS AND CONDITIONS**  
(To be filled in full and to be submitted along with offer)

SL. NO	DESCRIPTION	BHEL'S REQUIREMENT	SUPPLIER'S COMMENTS
01	PRICE	Firm till completion of order.	
02	<b>DELIVERY TERMS</b>	FOR, DESTINATION (BHEL, BAP, Ranipet-Stores)	
03	PACKING & FORWARDING	Whether included in basic price or Extra.(if extra, indicate in %age)	
04	FREIGHT & INSURANCE	Whether included in basic price or Extra. (if extra, indicate %age)	
05	GST	Applicable GST to be indicated by supplier. (IGST/SGST/CGST/UTGST) (Applicable on basic price)	
06	MSME STATUS (MICRO/SMALL/MEDIUM)	To be indicated by supplier.	
07	<b>PAYMENT</b>	For MSE vendors 100% within 45 days after receipt & acceptance of materials at our end. For NON - MSE vendors "100% within 90 days of receipt and acceptance of materials at our stores". (Please confirm your acceptance for the same. In the event of any deviation in the above payment terms the following loading on your base rate will be done as below." Base rate of SBI (as applicable on the date of techno commercial bid opening) + 6% shall be considered for loading for the period of relaxation sought by you")	
08	<b>DELIVERY PERIOD</b>	To be indicated by supplier (In terms of no of weeks/days form the date of PO)	
09	L.D. CLAUSE	As indicated in Enquiry (as per IMPORTANT NOTE) Confirmation L.D. clause as indicated in Enquiry @ 0.5% per week subject to a maximum of 10% for the delayed delivery. (In case any bidder is not accepting the above penalty for delayed Supply, the offer of bidder shall be loaded to the extent to which it is not agreed by the bidder. Example: If the Supplier has accepted for maximum 5% penalty clause, then balance 5% will be loaded for evaluating lowest bidder)	
10	OFFER VALIDITY	Minimum 90 days from the date of Technical bid opening	
11	INSPECTION BEFORE DESPATCH	Will be done at Your Works Before Dispatch No Extra cost shall be offered	
12	TEST CERTIFICATE	Required @ no extra cost	
13	GUARANTEE CERTIFICATE (Period: 12 months from the date of commissioning (or) 18 months from the date of supply which ever is earlier.	Required @ no extra cost	
14	INSTALLATION & COMMISSIONING	Supplier's scope (if required, please indicate charge per man day inclusive of to & fro, lodging, boarding to site on lump sum basis)	Not Applicable
15	PERFORMANCE BANK GUARANTEE (10% OF RDER VALUE)	Not Applicable.	Not Applicable
16	O&M MANUAL	Not Applicable	Not Applicable
17	RISK PURCHASE	SPECIFICALLY CONFIRM YOUR ACCEPTANCE	Not Applicable
18	Reverse Auction (RA)	Reverse Auction is not applicable.	Not Applicable
19	HSN # No of products	To be indicated for each product	
20	GST registration no	Supplier to indicate GST registration no of firm	
21	MANUFACTURING PLACE & COUNTRY	To be indicated by supplier.	

SIGNATURE WITH SEAL

ANNEURE – “B” TO ENQUIRY NO: .....  
 REQUIREMENT OF TECHNICAL DETAILS /CONFIRMATION  
 (To be filled in full and to be submitted along with offer)

S.NO	DESCRIPTION	BHEL'S REQUIREMENT	SUPPLIER'S COMMENTS
01	SPECIFICATION	Clause wise / Point wise confirmation to be given in TOTO for all specifications& to be submitted along with offer. (i.e. Xerox copy of specn duly filled with your acceptance / comments duly signed & sealed).	
02	DATA SHEET / DRGS	Filled Data Sheet and your Drgs are to be submitted along with offer. (if applicable).	
03	QUALITY PLAN	<b>BHEL SQP to be followed</b>	
04	SPECIFICATION DEVIATION DISPOSITION REPORT (SDDR)	Attached SDDR to be filled & submit along with offer. (Even NO deviation is taken, NIL report to be submitted).	

Date:

SIGNATURE WITH SEAL

(to be submitted along with the offer)

SPECIFICATION DEVIATION DISPOSITION REPORT			
Specn		Item	
Enq. No & Date			
Vendor Name			
SPECN			
Page	Clause	Details Of Deviation With Reason	Disposition By BHEL
Signature Of Vendor			Reviewed By
"AGREED DEVIATION " if any to be incorporated in the PO in the event of order.		APPROVED BY	