BHARAT HEAVY ELECTRICALS LIMITED , Heavy Electrical Equipment Plant Ranipur, Haridwar – 249 403 (UK), India



BHEL Tender Enquiry No. B/4011/2024/2989/V1 for the requirement of Boroscopic Video Image Kit for ADANI RAIGARH, RAIPUR PH-II, MIRZAPUR (PH-1), KAWAI (PH-II & PH-III) & MAHAN (PH-II) projects on GeM Portal

LIST OF ENCLOSURES

| | <u>Document</u> | Number of pages |
|----|---|-----------------|
| 1. | PRE-QUALIFICATION REQUIREMENT | 01 |
| 2. | BUYER SPECIFIC TERMS & CONDSPECIAL CONDITIONS OF TENDER | 13 |
| 3. | MADE IN INDIA DECLARATION FORMAT | 01 |
| 4. | DRG NO 31212056000 REV.02 | 02 |
| | TOTAL PAGES | 17 |

Sachin Gupta (Engineer/PPX-BOI)

Email: gupta.sachin@bhel.in

Pankaj Kumar (Manager/ PPX-BOI)

Email: ssbgpankaj@bhel.in





BHARAT HEAVY ELECTRICALS LIMITED, HARIDWAR

STEAM TURBINE ENGINEERING Department

| DOCUM | IENT NO. |
|--------------|------------|
| STE/TE/ | PQR/MUK/4 |
| Dt: | 09/04/2021 |
| Pg. No. | 1 of 1 |
| | |

Pre-Qualification Requirement for Boroscopic Video Image Kit for Steam Turbine(BHEL)

This system should consist of video-probe, light and power source as required, CCD camera, camera control unit function, handy LCD monitor, suitable USB video port with software for simultaneous view of inspection at personal computer and others essential accessories along with necessary software for viewing, recording as well as measuring of defects or discontinuity.

The following pre-qualification criteria is proposed for agency interested in supplying Boroscopic Video Image Kit:

- 1. Vendor should have the status of either as OEM or the authorized dealer of an OEM (Valid agency agreement with the OEM to be submitted by the authorized dealer) of Boroscopic Video Image Kit (i.e. Borescope Inspection Equipment).
- 2. Vendor must have the experience of supply of Boroscopic Video Image Kit and its commissioning at site during the last 07(seven) years from the date of enquiry. In support of above, vendor to furnish following documents:
 - 2.1 Unpriced purchase order copy of supply
 - 2.2 Document regarding commissioning at site (signed protocol/MOM etc with end customer)
- 3. Vendor must have at least one full-fledged service centre in India for Boroscopic Video Image Kit. In support of this, vendor to furnish document from OEM providing details of service centres in India.
- 4. Vendor to confirm to comply to BHEL drawing requirements in totality.

Prepared By:

Mukul Agrawal Sr. Engineer Checked By:

Pradeep Kanaujia Dy. Manager Reviewed By:

Alok Kumar Singh

DGM

Approved By:

D.R. Ray \
Sr.DGM

BHEL Ref. No.: B/4011/2024/2989/GeM

BUYERS SPECIFIC ADDITIONAL TERMS & CONDITIONS

ITEM NAME: BOROSCOPIC VIDEO IMAGE KIT

PROJECTS- ADANI RAIGARH, RAIPUR PH-II, MIRZAPUR (PH-1), KAWAI (PH-II & PH-III) & MAHAN (PH-II)

1. SCOPE OF ENQUIRY:

E-bids on GeM portal are invited from bidders for the supply of BOROSCOPIC VIDEO IMAGE KIT for ADANI PROJECTS as per requirement mentioned below:

| SI. No. | Material Code & Item Description | PROJECT NAME | LOTWISE QTY | LOT WISE DELIVERY |
|------------|--|---------------|-------------|-------------------|
| 1 | W90312120010 DRG: 31212056000 REV: 02 BOROSCOPIC VIDEO IMAGE KIT AS PER DRG. NO. 31212056000 | RAIGARH | 01 SET | 03.07.2026 |
| 2 | W90312120010 DRG: 31212056000 REV: 02 BOROSCOPIC VIDEO IMAGE KIT AS PER DRG. NO. 31212056000 | RAIPUR PH-II | 01 SET | 28.02.2027 |
| 3 | W90312120010 DRG: 31212056000 REV: 02 BOROSCOPIC VIDEO IMAGE KIT AS PER DRG. NO. 31212056000 | MIRZAPUR-PH-I | 01 SET | 30.06.2027 |
| 4 | W90312120010 DRG: 31212056000 REV: 02 BOROSCOPIC VIDEO IMAGE KIT AS PER DRG. NO. 31212056000 | KAWAI -PH -I | 01 SET | 30.12.2027 |
| 5 | W90312120010 DRG: 31212056000 REV: 02 BOROSCOPIC VIDEO IMAGE KIT AS PER DRG. NO. 31212056000 | KAWAI -PH -II | 01 SET | 31.03.2028 |
| 6 | W90312120010 DRG: 31212056000 REV: 02 BOROSCOPIC VIDEO IMAGE KIT AS PER DRG. NO. 31212056000 | MAHAN PH-III | 01 SET | 30.03.2028 |

2. Project Detail with consignee address:

| a.Project Name | 2X800 MW RAIGARH TPP (PH-II) PROJECT |
|----------------------|---|
| Consignee Address | Adani Power Limited Village: Chhote Bhandar PO: Bade Bhandar Tehsil: Pussore Raigarh 496100 |
| b.Project Name | 2X800 MW Mahan TPP (PH-III) |

| llage: Bandhoura, Karsualal hsil: Waidhan, District-Singrauli, n - 486886, Madhya Pradesh K800 MW APL Raipur(Ph-II) Adani Power Limited Village: Raikheda Block: Tilda, Raipur 493225 Chhattisgarh 2X800 MW Mirzapur PH-I Mirzapur Thermal Energy (UP) Private Limited llage: Dadri Khurd; PO: Darhi Ram Tehsil: Sadar, District: Mirzapur 231 304 |
|--|
| X800 MW APL Raipur(Ph-II) Adani Power Limited Village: Raikheda Block: Tilda, Raipur 493225 Chhattisgarh 2X800 MW Mirzapur PH-I Mirzapur Thermal Energy (UP) Private Limited |
| Adani Power Limited Village: Raikheda Block: Tilda, Raipur 493225 Chhattisgarh 2X800 MW Mirzapur PH-I Mirzapur Thermal Energy (UP) Private Limited |
| Village: Raikheda Block: Tilda, Raipur 493225 Chhattisgarh 2X800 MW Mirzapur PH-I Mirzapur Thermal Energy (UP) Private Limited |
| Block: Tilda, Raipur 493225 Chhattisgarh 2X800 MW Mirzapur PH-I Mirzapur Thermal Energy (UP) Private Limited |
| Chhattisgarh 2X800 MW Mirzapur PH-I Mirzapur Thermal Energy (UP) Private Limited |
| 2X800 MW Mirzapur PH-I Mirzapur Thermal Energy (UP) Private Limited |
| Mirzapur Thermal Energy (UP) Private Limited |
| |
| |
| tar Pradesh |
| X800 MW KAWAI PH-II |
| ani Power limited, Kawai, 2 x 800 MW(Phase-II) Thermal Power project, Village - wai, Tehsil - Atru, Baran -District, Rajasthan n-325219 |
| 800 MW KAWAI PH-III |
| dani Power limited, Kawai, 2 x 800 MW(Phase-III) Thermal Power project, Village - wai, Tehsil - Atru, Baran -District, Rajasthan |
| ָ ֖֭֓֞֜֝ |

3.BUYERS SPECIFIC ADDITIONAL TERMS & CONDITIONS IN ADDITION TO GTC

| SI. No. | Terms | Description | Supplier confirmation |
|------------|---------------------------------------|---|-----------------------|
| 1. | Documents Checklist: | Please submit signed and stamped copy of your offer on each page along with following documents; Buyer Specific T&C. Technical PQR & its supportive document. Technical drawing & purchase specification. Certificate/self-certification for minimum local content as per PPP-MII order. Replica of price bid schedule without prices with part-I offer. | |
| 2. | Compliance of GTC on GeM | General Terms and Conditions on GeM 4.0 (Version 1.20) Dtd 16.12.2024 or it's latest revision of GeM portal shall be applicable against this enquiry. Kindly confirm to compliance the same for this tender. | |
| 3. | Pre- Qualification Requirements | The Pre-Qualification Requirements have been compiled. All the bidders should ensure submission of complete details and documents as called for in these requirements. The Offers submitted by the bidders would be scrutinized with respect to Pre-Qualification Requirements first. Techno-Commercial offer of only | |

| | | those bidders shall be evaluated who meet the Pre-Qualification Requirements. | |
|----|---|--|--|
| 4. | Customer | and a state of a state of the fire the fire qualification negative incidence. | |
| 4. | approval requirement | Bidders are requested to submit their credentials along with offer (Credentials should include BHEL P.O.s on vendor for the same rating or higher rating turbines, Experience of vendor with state utilities and major PSU like NTPC, End User Certificate wherever available), in order to take up with end customer for approval | |
| | | Supplier to submit following credentials for arranging Customer approval: • Company Profile | |
| | | • List of Order Executed/ on hand for Power Sector/Gov. organization of same /similar items | |
| | | Copy of Major Supply Orders | |
| | | Performance Certificates for Satisfactory working of System/ Equipment from end users Item. | |
| | | The offer of only those bidders, who meet Pre-qualification requirement (PQR), Technical requirement and approved by the End Customer, will be considered for price-bid opening & RA for the requirement against this enquiry. | |
| 5. | Make in India Clause | "For this procurement, the local content to categorize a supplier as a Class-I Local Supplier / Class-II Local Supplier/ Non-Local Supplier and purchase preference to Class-I Local Supplier, is as defined in Public Procurement (Preference to Make in India), Order-2017 Ref. No. P-45021/2/2017-PP (BE-II) dtd. 04/06/2020 issued by DPIIT. In case of subsequent orders issued, by the nodal ministry, changing the definition of local content for the items of this NIT, but before opening of Part-II bids against this NIT | |
| | | As per Make in India Order, only Class-1 and Class-2 local supplies are eligible to bid in this tender enquiry. | |
| | | For this eligibility criteria, bidders are required to submit certificate of Minimum local content as specified in attached Make In India Declaration format. | |
| 6. | Compliance of Rule 144 (xi) of GFR 2017 | Compliance of Restrictions under Rule 144 (xi) of GFR 2017 shall be as per GeM. | |
| 7. | Bid validity/ Validity of offer | Please note that validity of the offer shall be 180 days from the date opening of Techno-Commercial bid (Part-I bid) on GeM portal. Offer of bidder's having validity less than 180 days shall liable to reject. Please confirm. | |
| | | The required validity is considering that offer is complete & clear w.r.t. PQR and all techno-commercial conditions. Vendors need to extend their offer validity for the time taken by them in responding BHEL's comments/clarification sought during techno-commercial scrutiny of the offer. In case regret by any bidder for such validity extension, their offer shall liable to be reject. Please confirm. | |
| 8. | Loading and unloading | Vendor's scope will not cover Loading & Unloading at Final destination of delivery. Unloading at final destination (i.e. BHEL site) is in BHEL 'scope. Loading and unloading at other intermediate places due to any permitted | |
| 9. | Prices/Basis of Quotation | contract , kindly confirm. | |
| | | Kindly confirm that your quote prices are inclusive of P&F, Freight & GST for Total quantity on GeM portal. | |
| | | Transit Insurance would be arranged by BHEL. Please quote your prices | |

| I | | accordingly | | <u> </u> | | | |
|-----|-----------------|---|--|----------|--|--|--|
| | | accordingly. The prices are to be quoted on the prices are to be quoted on the prices. | Ex-Works with freight Pre-paid up to project | | | | |
| | | · · · · · · · · · · · · · · · · · · · | t be dispatched through any Bank approved | | | | |
| | | _ | | | | | |
| | | transporters having their branch at Haridwar. The names and addresses of transporters approved by IBA as well as BHEL are posted at our website | | | | | |
| | | www.bhelhwr.co.in. Please note that, if you dispatch the material by any BHEL | | | | | |
| | | un-approved transporter then you will necessarily be required to furnish the MRC | | | | | |
| | | | respective Project Site for processing of your | | | | |
| | | invoice. No demurrage charges wou | | | | | |
| 10. | Demonstration | Kindly note that Demonstration and | Training of the Equipment is required at each | | | | |
| | and Training of | project site, kindly confirm that lum | np sum charges for per man day & per visit for | | | | |
| | the Equipment | each project , have been quoted separately on GeM portal . | | | | | |
| | | Kindly note that supplier to send | the competent representative within 14 days | | | | |
| | | from the intimation from BHEL. | | | | | |
| | | Please confirm that the charges of | uoted for Demonstration and Training of the | | | | |
| | | Equipment shall be inclusive of app | _ | | | | |
| | | Equipment shan be melasive of app | | | | | |
| 11. | Special | a. ADADNI projects: | | | | | |
| | Instructions: | - 00 DIGIT CCT UCA CODE: 1 | o manufación de O manufación de la comunicación de O | | | | |
| | | | e provided & mentioned in your invoice & | | | | |
| | | packing list. | | | | | |
| | | | est certificate are required in original for billing | | | | |
| | | to end user. | | | | | |
| | | Loose items one marker board needs to be send for each bundle for fixing | | | | | |
| | | RFID tag at site. | | | | | |
| 12. | Evaluation | Evaluation shall be done on total la | nded cost upto BHEL Project Sites considering | | | | |
| | criteria | all material codes and services toget | her. | | | | |
| | | | | | | | |
| 13. | Evaluation | The evaluation currency for this ten | der shall be INR. | | | | |
| | Currency | , , , , , , , , , , , , , , , , , , , | | | | | |
| 14. | Payment | For Material portion : | | | | | |
| | terms: | | eipt of Material at BHEL respective project site, | | | | |
| | | at site i.e. MRC date). | elow table from the date of receipt of Material | | | | |
| | | Type of Bidder | Payment Terms (Number of Days) | | | | |
| | | Micro & Small Enterprises | 45 days | | | | |
| | | (MSEs) | • | | | | |
| | | Medium Enterprises | 60 days | | | | |
| | | Non MSME | 90 days | | | | |
| | | The Payment terms are subject | to receipt of non-discrepant document from | | | | |
| | | supplier. | · | | | | |
| | | For Demonstration and Training of | | | | | |
| | | · · · · · · · · · · · · · · · · · · · | ate/confirmation of Successfully demonstration | | | | |
| | | | igh BHEL site/commercial & invoice directly to | | | | |
| | | BHEL. | | | | | |
| 15. | GeM charges | | side only i.e. buyer's GeM charges shall be in | | | | |
| | | | charges shall be on seller's account. Please | | | | |
| i l | | confirm. | | | | | |
| 16. | Contract | | related query & clarification carefully on GeM | | | | |

| | execution | portal. Order shall be executed through GeM. | |
|-----|--|---|--|
| 17. | Reverse Auction (E-bidding) | BHEL shall be resorting to Reverse Auction (RA) on GEM portal as per GEM functionalities for this tender. RA shall be conducted among the technocommercially qualified bidders. | |
| 18. | Quantity Variation | BHEL reserves the right to cancel tender or reject any or all the quotations without assigning any reasons thereof. BHEL also reserves the right to Increase or decrease the tendered quantities or quantity of individual material code may be dropped as a whole also. Vendors should be prepared to accept order for reduced Quantity without any extra charges. Vendor should also be prepared for giving discount in case of Increase in Quantity. Vendor has to take manufacturing clearance from BHEL before starting manufacturing of material. In case ordered quantity is reduced at the time of manufacturing clearance, then payment shall be made accordingly as per decreased quantity. Kindly confirm. | |
| 19. | Delivery Period | Please note that BHEL's Delivery requirements are mentioned in point no 1 of above. Early delivery w.r.t. above lot delivery will be accepted only after written confirmation from BHEL. BHEL reserve right to reject early delivery request of bidders / suppliers. Delivery period indicated in GeM bid is only indicative and final delivery of tender shall be taken as mentioned above. Accordingly bidders to confirm the above deliveries or quote their best possible delivery in no of months / weeks from the date of placement of Purchase order, including all activities like document approval, inspection by TPI time etc. | |
| 20. | Technical Document/ Drawing approval conditions | Drawings/Data sheets/documents/QAP etc. as called for in the specifications shall be submitted by Vendor for BHEL/ Customer approval within 30 days of purchase order. BHEL shall approve these drawings/data sheets/ documents / QAP etc. within 30 days of receipt. Any comments on the documents shall be given by BHEL within 7 days of submission and vendor shall submit revised document / reply to comments, within 7 days of BHEL comments. However, total time for Document submission and approval shall not exceed 30 days for respective party. Delivery is from the date of PO, accordingly, delay in submission / revision of the documents by the vendor will automatically account for to vendor. In case of delay on account of BHEL in comments / approval of the documents, the delivery shall be re-scheduled by the no of days taken by BHEL in excess to 30 days. For delay analysis cumulative no of days (including time taken in comments), shall be considered for delivery extension. | |
| 21. | Liquidated Damages (LD) for late delivery | Liquidated Damages shall be lot wise as per clause no. 15 (iii) of General terms and conditions on GeM 4.0 (Version 1.20) as under: kindly confirm. "If the Seller/Service Provider fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 0.5% of the contract value of delayed quantity per week or part of the week of delayed period as preestimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever". The date of LR would be treated as the date of delivery for penalty purposes. | |

22. MDCC clause

Please note that, material shall be dispatched only after issue of Material dispatch clearance certificate (MDCC) from end customer. For issue of MDCC, vendors are required to submit all test certificates (TC) and inspection report of third party (IR) to BHEL. After review & acceptance of the quality document, BHEL will forward the same to end customer for issuance of MDCC.

MDCC shall be issued within 7 days of receipt of complete quality documents / TCs,. In case of delay in issuance of MDCC, only delivery shall be extended by no of days taken by BHEL in excess to 7 days and all other terms and conditions of PO shall remains same & binding.

In case any material is dispatched without MDCC and any loss is incurred by Supplier/Vendor for any reason whatsoever, BHEL shall not be responsible in any manner to compensate the supplier in this regard.

Kindly confirm.

23. BREACH OF CONTRACT, REMEDIES AND TERMINATION:

The following shall amount to breach of contract:

- I. Non-supply of material/ non-completion of work by the Supplier/Vendor within scheduled delivery/ completion period as per contract or as extended from time to time.
- II. The Supplier/Vendor fails to perform as per the activity schedule and there are sufficient reasons even before expiry of the delivery/ completion period to justify that supplies shall be inordinately delayed beyond contractual delivery/ completion period.
- III. The Supplier/Vendor delivers equipment/ material not of the contracted quality.
- IV. The Supplier/Vendor fails to replace the defective equipment/ material/ component as per guarantee clause.
- V. Withdrawal from or abandonment of the work by the Supplier/Vendor before completion as per contract.
- VI. Assignment, transfer, subletting of Contract by the Supplier/Vendor without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- VII. Non-compliance to any contractual condition or any other default attributable to Supplier/Vendor.
- VIII. Any other reason(s) attributable to Vendor towards failure of performance of contract. In case of breach of contract, BHEL shall have the right to terminate the Purchase Order/ Contract either in whole or in part thereof without any compensation to the Supplier/Vendor.
- IX. Any of the declarations furnished by the contractor at the time of bidding and/ or entering into the contract for supply are found untruthful and such declarations were
- of a nature that could have resulted in non-award of contract to the contractor or could expose BHEL and/ or Owner to adverse consequences, financial or otherwise.
- X. Supplier/Vendor is convicted of any offence involving corrupt business practices, antinational activities or any such offence that compromises the business ethics of BHEL, in violation of the Integrity Pact entered into with BHEL has the potential to harm the overall business of BHEL/ Owner.

Note-Once BHEL considers that a breach of contract has occurred on the part of Supplier/Vendor, BHEL shall notify the Supplier/Vendor by way of notice in this regard. Contractor shall be given an opportunity to rectify the reasons causing the breach of contract within a period of 14 days.

In case the contractor fails to remedy the breach, as mentioned in the notice, to the satisfaction of BHEL, BHEL shall have the right to take recourse to any of the remedial actions available to it under the relevant provisions of contract.

Remedies in case of Breach of Contract.

- i) Wherein the period as stipulated in the notice issued under above clause has expired and Supplier/Vendor has failed to remedy the breach, BHEL will have the right to terminate the contract on the ground of "Breach of Contract" without any further notice to contractor.
- ii) Upon termination of contract, BHEL shall be entitled to recover an amount equivalent to 10% of the Contract Value for the damages on account of breach of contract committed by the Supplier/Vendor. This amount shall be recovered by way of encashing the security instruments like performance bank guarantee etc available with BHEL against the said contract. In case the value of the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the Supplier/Vendor, retention amount, from the money due to the Supplier/Vendor etc. with BHEL) or the other legal remedies shall be pursued.
- iii) wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case no security instruments are available or the value of the security instruments available is less than 10% of the contract value, the 10% of the contract value or the balance amount, as the case may be, will be recovered in all or any of the following manners:
- iv) In case the amount recovered under sub clause (a) above is not sufficient to fulfil the amount recoverable then; a demand notice to deposit the balance amount within 30 days shall be issued to Supplier/Vendor.
- v) If Supplier/Vendor fails to deposit the balance amount within the period as prescribed in demand notice, following action shall be taken for recovery of the balance amount:
- a) from dues available in the form of Bills payable to defaulted Supplier/Vendor against the same contract.
- b) If it is not possible to recover the dues available from the same contract or dues are insufficient to meet the recoverable amount, balance amount shall be recovered from any money(s) payable to Supplier/Vendor under any contract with other Units of BHEL including recovery from security deposits or any other deposit available in the form of security instruments of any kind against Security deposit or EMD.
- vi) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted supplier/Vendor.
- vii) It is an agreed term of contract that this amount shall be a genuine preestimate of damages that BHEL would incur in completion of balance contractual obligation of the contract through any other agency and BHEL will not be required to furnish any other evidence to the Supplier/Vendor for the purpose of estimation of damages.
- viii) In addition to the above, imposition of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.

Note:

1) The defaulting Supplier/Vendor shall not be eligible for participation in

any of the future enquiries floated by BHEL to complete the balance work. The defaulting contractor shall mean and include:

- (a) In case defaulted Supplier/Vendor is the Sole Proprietorship Firm, any Sole Proprietorship Firm owned by same Sole Proprietor.
- (b) In case defaulted Supplier/Vendor is The Partnership Firm, any firm comprising of same partners/ some of the same partners; or sole proprietorship firm owned by any partner(s) as a sole proprietor.

24. Suspension of Business Dealings with Suppliers / Contractors:

The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms / principal / agents, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.

If any bidder / supplier / contractor during pre-tendering / tendering / post tendering / award / execution / post-execution stage indulges in any act, including but not limited to, mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or tampers the tendering process or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860(Bhartiya Nyaya Samhita 2023) or any other law in force in India, or does anything which is actionable under the Guidelines for Suspension of Business dealings, action may be taken against such bidder / supplier / contractor as per extant guidelines of the company available on www.bhel.com and / or under applicable legal provisions. Guidelines for suspension of business dealings is available in the webpage:

http://www.bhel.com/vender_registration/vender.php.

25. Settlement of Dispute, CONCILIATION & ARBITRATION:

Settlement of Dispute

If any dispute or difference of any kind whatsoever shall arise between BHEL and the Supplier/Vendor, arising out of the contract for the performance of the work whether during the progress of contract termination, abandonment or breach of the contract, it shall in the first place referred to Designated Officer / IEM for amicable resolution by the parties. Designated Officer / IEM who within 60 days after being requested shall give written notice of his decision to the contractor. Save as hereinafter provided, such decision in respect of every matter so referred shall forthwith be given effect to by the Supplier/Vendor who shall proceed with the work with all due diligence, whether he or BHEL desires to resolve the dispute as hereinafter provided or not. If after the Designated Engineer has given written notice of this decision to the party and no intention to pursue the dispute has been communicated to him by the affected party within 30 days from the receipt of such notice, the said decision shall become final and binding on the parties. In the event the Supplier/Vendor being dissatisfied with any such decision or if amicable settlement cannot be reached then all such disputed issues shall be resolved through conciliation in terms of the BHEL Conciliation Scheme 2018 as per 'CONCILIATION' Clause.

CONCILIATION:

Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the "Dispute") shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure as per BHEL Conciliation Scheme 2018. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in - "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com).

Note: Ministry of Finance has issued OM reference No. 1/2/24 dated 03.06.2024

regarding "Guidelines for Arbitration and Mediation in Contracts of Domestic Public Procurement. In the said OM it has been recommended that Government departments/ Entities/agencies are to encourage mediation under the Mediation Act. 2023. The said Act has not yet been notified by the Government. Therefore, the clause "Settlement of Disputes" shall be modified accordingly as and when the Mediation Act 2023 gets notified.

ARBITRATION:

Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided herein above or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or. in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, refer the disputes to Arbitral Institution and such dispute to be adjudicated by Sole Arbitrator appointed in accordance with the Rules of said Arbitral Institution.

A party willing to commence arbitration proceeding shall invoke Arbitration Clause by giving notice to the other party in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice') before referring the matter to arbitral institution. The Notice shall be addressed to the Head of the Region, Power Sector/ Unit, BHEL, executing the Contract and shall contain the particulars of all claims to be referred to arbitration with sufficient detail and shall also indicate the monetary amount of such claim including interest, if any.

After expiry of 30 days from the date of receipt of aforesaid notice, the party invoking the Arbitration shall submit that dispute to the Arbitral Institutions (shall be identified by the contract issuing agency) and that dispute shall be adjudicated in accordance with their respective Arbitration Rules. The matter shall be adjudicated by a Sole Arbitrator who shall necessarily be a Retd Judge having considerable experience in commercial matters to be appointed/nominated by the respective institution. The cost/expenses pertaining to the said Arbitration shall also be governed in accordance with the Rules of the respective Arbitral Institution. The decision of the party invoking the Arbitration for reference of dispute to a specific Arbitral institution for adjudication of that dispute shall be final and binding on both the parties and shall not be subject to any change thereafter. The institution once selected at the time of invocation of dispute shall remain unchanged.

The fee and expenses shall be borne by the parties as per the Arbitral Institutional rules.

The Arbitration proceedings shall be in English language and the seat and venue of Arbitration shall be at the court(s) of Haridwar.

Subject to the above, the provisions of Arbitration & Conciliation Act 1996 and any amendment thereof shall be applicable. All matters relating to this Contract and arising out of invocation of Arbitration clause are subject to the exclusive jurisdiction of the Court(s) situated at Haridwar, shall have exclusive jurisdiction.

Notwithstanding any reference to the Designated Engineer or Conciliation or Arbitration herein, a. the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree. Settlement of Dispute clause cannot be invoked by the Contractor, if the Contract has been mutually closed or 'No Demand Certificate' has been furnished by the Contractor or any

| | | Settlement Agreeme | ent has been signed b | etween the Employe | er and the Contractor. | | | |
|-----|--------------------------------|---|---|-----------------------|---|--|--|--|
| | | It is agreed that Me | chanism of resolutio | n of disputes throug | th arbitration shall be | | | |
| | | _ | | | | | | |
| | | • | available only in the cases where the value of the dispute is less than Rs. 10 Crores. In case the disputed amount Claim, Counter claim including interest is Rs. 10 crores | | | | | |
| | | and above, the part | ies shall be within t | heir rights to take | recourse to remedies | | | |
| | | other than Arbitratio | on, as may be availab | le to them under the | applicable laws after | | | |
| | | prior intimation to t | he other party. Subje | ect to the aforesaid | conditions, provisions | | | |
| | | | • | • | ry modifications or re- | | | |
| | | | | ne to time, shall ap | ply to the arbitration | | | |
| | | proceedings under the | | | | | | |
| | | | | • | ice or arbitral award | | | |
| | | ' ' ' ' ' ' | • | | lative value of claims ons shall be taken in | | | |
| | | _ | | | bject contract for the | | | |
| | | | | | tive value of less than | | | |
| | | l ' ' | • | • | ional dispute shall be | | | |
| | | adjudicated by the co | | | · | | | |
| 26. | Action against | In order to protect th | ne commercial intere | sts of BHEL, BHEL sh | all take action against | | | |
| | Bidders / | | | | ngs, who either fail to | | | |
| | vendor / | · | • | | use loss of business/ | | | |
| | supplier / | | - | _ | ry, fraud or any other | | | |
| | contractor in case of default: | influence the price e | | as to influence the | e bidding process or | | | |
| | case of default. | initiaence the price e | ic. | | | | | |
| | | Suspension of Busin | ess Dealings could I | oe in the form of "I | Hold" or "Banning" a | | | |
| | | · · | Suspension of Business Dealings could be in the form of "Hold" or "Banning" a supplier/ contractor or a bidder and shall be as per "Guidelines for Suspension of | | | | | |
| | | Business Dealings with Suppliers/ Contractors" available at BHEL's website | | | | | | |
| | | "https://www.bhel.com/guidelines-suspension-business-dealings- | | | | | | |
| | | supplierscontractors | _ | | | | | |
| 27. | MICRO AND | Any Bidder falling under MSE category shall furnish the following details & submit | | | | | | |
| | SMALL ENTERPRISES | documentary evidence/ Govt. Certificate etc. in support of the same along with | | | | | | |
| | (MSE): | their techno-commercial offer. | | | | | | |
| | (WISE). | Type under MSE | SC/ST owned | Women owned | Others (excluding | | | |
| | | Type under Misc | 3C/31 OWITEG | vvoinen owned | SC/ ST & Women | | | |
| | | | | | Owned) | | | |
| | | Micro | | | · | | | |
| | | Small | | | | | | |
| | | Note: If the bidder d | loes not furnish the a | above, offer shall be | processed construing | | | |
| | | that the bidder is no | | | | | | |
| | | a) MSE sup | ppliers can avail th | e intended benefit | s in respect of the | | | |
| | | • | | · · | inition of Goods and | | | |
| | | Services as enumerated by Govt. of India vide Office Memorandum F. No. | | | | | | |
| | | 21(8)/2011-MA dtd. 09/11/2016 office of AS & DC, MSME) only if they submit along with the offer, attested copies of either Udyam Registration. Date to be | | | | | | |
| | | | · · | | date of Technical Bid | | | |
| | | | - | • | M portal will lead to | | | |
| | | | | • | No benefits shall be | | | |
| | | | • | | are not uploaded at | | | |
| | | | | • | • | | | |
| | | the time of bid submission. Documents submitted by the bidder shall be verified by BHEL for rendering the applicable benefits. | | | | | | |
| | | | | | | | | |
| 28. | JURISDICTION: | This contract shall I | be governed by the | Law for the time | being in force in the | | | |
| 28. | JURISDICTION: | This contract shall I | be governed by the | Law for the time | being in force in the his contract, the Civil | | | |

| | | Court having original Civil Jurisdiction at Haridwar shall alone have exclusive | |
|-----|---------------------|--|--|
| | | jurisdiction in regard to all matters in respect of the Contract. | |
| 29. | Force Majeure | "Force Majeure" shall mean circumstance which is: a) beyond control of either of the parties to contract, b) either of the parties could not reasonably have provided against the event before entering into the contract, c) having arisen, either of the parties could not reasonably have avoided or overcome, and d) is not substantially attributable to either of the parties And Prevents the performance of the contract, Such circumstances include but shall not be limited to: i) War, hostilities, invasion, act of foreign enemies. ii) Rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war. iii) Riot, commotion or disorder by persons other than the contractor's personnel and other employees of the contractor and subcontractors. iv) Strike or lockout not solely involving the contractor's personnel and other employees of the contractors. v) Encountering munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the contractor's use of such munitions, explosives, radiation or radio-activity. vi) Natural catastrophes such as earthquake, tsunami, volcanic activity, hurricane or typhoon, flood, fire, cyclones etc. vii) Epidemic, pandemic etc. | |
| | | The following events are explicitly excluded from Force Majeure and are solely the responsibilities of the non-performing party: a) any strike, work-to-rule action, goslow or similar labour difficulty (b) late delivery of equipment or material (unless caused by Force Majeure event) and (c) economic hardship. | |
| | | If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within 15 (fifteen) days after the occurrence of such event. | |
| | | The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended by a period of time equal to period of delay caused due to such Force Majeure event. | |
| | | Delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall not i) Constitute a default or breach of the Contract. ii) Give rise to any claim for damages or additional cost expense occasioned thereby, if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure. BHEL at its discretion may consider short closure of contract after 1 year of imposition of Force Majeure in line with extant guidelines. In any case, Supplier/Vendor cannot consider deemed short-closure after 1 year of imposition | |
| 30. | Cartel Formation | of Force Majeure The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, | |
| | | submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines. | |
| 31. | Order of | In the event of any ambiguity or conflict between the Tender Documents, the order of | |
| | I | Page 11 of 13 | |

| | Precedence: | procedence shall be in the order below: | |
|-----|----------------|---|--|
| | Precedence. | precedence shall be in the order below: a. Amendments/Clarifications/Corrigenda/Errata etc. issued in respect of the | |
| | | · · | |
| | | tender documents by BHEL. | |
| | | b. Buyer Added Bid Specific ATC | |
| | | c. GeM Bid Technical Conditions of Contract (TCC) | |
| | | d. GeM GTC | |
| 32. | Conflict of | A bidder shall not have conflict of interest with other bidders. Such conflict of interest | |
| | interest: | can lead to anti-competitive practices to the detriment of Procuring Entity's interests. | |
| | | The bidder found to have a conflict of interest shall be disqualified. A bidder may be | |
| | | considered to have a conflict of interest with one or more parties in this bidding | |
| | | process, if: | |
| | | a) they have controlling partner (s) in common; or | |
| | | b) they receive or have received any direct or indirect subsidy/financial stake from any | |
| | | of them; or | |
| | | c) they have the same legal representative/agent for purposes of this bid; or | |
| | | d) they have relationship with each other, directly or through common third parties, | |
| | | that puts them in a position to have access to information about or influence on the | |
| | | bid of another Bidder; or e) Bidder participates in more than one bid in this bidding process. Participation by a | |
| | | Bidder in more than one Bid will result in the disqualification of all bids in which the | |
| | | parties are involved. However, this does not limit the inclusion of the components/ | |
| | | sub-assembly/ Assemblies from. one bidding manufacturer in more | |
| | | than one bid; or | |
| | | f) In cases of agents quoting in offshore procurements, on behalf of their principal | |
| | | manufacturers, one agent cannot represent two manufacturers or quote on their | |
| | | behalf in a particular tender enquiry. One manufacturer can also authorize only one | |
| | | agent/dealer. There can be only one bid from the following: 1. The principal | |
| | | manufacturer directly or through one Indian agent on his behalf; and 2. Indian/foreign | |
| | | agent on behalf of only one principal· or | |
| | | g) A Bidder or any of its affiliates participated as a consultant in the preparation of the | |
| | | design or technical specifications of the contract that is the subject of the Bid· or | |
| | | h) In case of a holding company having more than one independently manufacturing | |
| | | units, or more than one unit having common business ownership/management, only | |
| | | one unit should quote. Similar restrictions would apply to closely related sister | |
| | | companies. Bidders must proactively declare such sister/ common business/ | |
| | | management units in same/ similar line of business. | |
| 33. | Guarantee/Wa | Kindly confirm the following Guarantee/Warranty clause; | |
| | rranty clause | The supplier shall guarantee trouble free operation of the equipment for a | |
| | | period of 24 months from the date of actual delivery or 18 months from the | |
| | | date of Demonstration of the Equipment ,whichever is earlier. | |
| | | In case of any failure or trouble reported from site, the supplier should depute | |
| | | their representative immediately to attend the problem and replace the | |
| | | defective component/part if required, without any additional cost to BHEL. | |
| | | BHEL reserve the rights to reject the offers having lesser guarantee period as | |
| | | mentioned above. | |
| 34. | Order | Ink signed order acceptance shall be furnished within 15 days of order placement. | |
| | Acceptance : | In case, order acceptance do not received within 15 days of order placement, PO | |
| | | deemed to be accepted by you. | |
| 35. | Beneficiary of | Kindly confirm on whom the PO will be placed in the event of ordering. | |
| | PO | | |
| 36. | Dispatch | Following dispatch documents to be provided immediately after directly dispatch | |
| | documents | to BHEL Project site for billing purpose: | |
| | | Guarantee/Warrantee Certificates | |
| | | E- Invoice and commercial inv | |
| | | GeM invoice | |
| | | | |
| | | Original consignee copies of GR/LR/RR (Material shall be dispatched on door | |

| | | delivery basis without consignee copy) Packing list Original GST compliance certificate MRC/POD/Receipted LR/RR/GR copy (as per proof of delivery of material at BHEL Project site) | |
|-----|--|--|--|
| 37. | Additional Conditions for Assessment | BHEL reserves the right to consider / Not-consider the offers based on the evaluation of documents submitted for the Pre-Qualification Criteria (PQR). BHEL also reserves the right to have on-site assessment of the facilities at | |
| | Assessment | supplier's works during the bid evaluation. | |
| 38. | O&M Manuals | Kindly confirm that in the event of ordering O&M manuals will be provided in 03 copies of O&M manual (including diagnostic philosophy i.e. Run/repair/replace criteria) in soft copy as well as hard copy should be supplied along with equipment. | |
| 39. | Quality Requirement | Kindly confirm that Testing & Certification shall be done as per ordering drawing and specifications for MDCC of each project | |

SPECIAL NOTE FOR BIDDERS:

- a. In the event of our customer order covering this tender being cancelled /placed on hold /otherwise modified, BHEL would be constrained to accordingly cancel / hold / modify the tender at any stage of execution.
- b. BHEL may negotiate the L1 rate, if not meeting our budget / estimated cost. BHEL may re-float the tender opened, if L1 price is not acceptable to BHEL even after negotiation.
- c. Any change in applicable rates of Tax or any other statutory levies (Direct / Indirect) or any new introduction of any levy by means of statute and its corresponding liability for the deliveries beyond the agreed delivery date for reasons not attributable to BHEL will be to vendors account. BHEL will not reimburse the same and any subsequent claim in this respect will be summarily rejected.
- d. BHEL reserves its right to reject an offer due to unsatisfactory past performance by the respective Vendor in the execution of any contract to any BHEL project / Unit.
- e. The offers of the bidders who are under suspension and also the offers of the bidders, who engage the services of the banned firms /principal/agents, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.
- f. Recovery / deduction as applicable as per Direct and Indirect taxes as notified by Govt. Of India from time to time will be made and information/certificate for such deduction/recoveries shall be provided by BHEL to the vendor.
- g. If the delivery of supply as detailed above gets delayed beyond the delivery period, the Supplier/Vendor shall request for a delivery extension and BHEL at its discretion may extend the Contract. However, if any 'Delivery extension' is granted to the Supplier/Vendor for completion of supply, due to backlog attributable to the Supplier/Vendor, then it shall be without prejudice to the rights of BHEL to impose LD for the delays attributable to the Supplier/Vendor.
- h. In case BHEL increase the quantity during currency of the contract in line with quantity variation clause of GeM bid, delivery extension on pro-rata basis shall be given for supply of these additional quantity.

Following documents are an integral part of this Tender Enquiry and endorsed copies of these documents (duly signed and stamped on each page, as a token of acceptance) are to be submitted/uploaded along with offer on GeM portal against this bid.

- 1. Please submit replica of Price schedule (without prices) showing "quoted" in place of price along with technocommercial bid (Part-I).
- 2. Please submit signed & Stamped copy (each page) of duly filled of confirmation column of "Buyers Specific Additional Terms & Conditions (ATC)" and its clause wise supporting documents where required.
- **3.** Please submit signed & stamped copy (each page) for qualifying PQR with proper filled information and related supporting documents as mentioned in PQR.
- 4. Please submit signed & stamped copy (each page) of QAP No. QA/BI/QP/310 (Rev. 03).
- 5. Please submit signed & stamped copy (each page) of Integrity Pact "AASSPIPR03 dtd 01/04/2022.
- 6. Please submit certificate of Minimum local content as specified in the Make In India Certificate of the tender

ANNEXURE – 12

Authorized Signatory of the Bidder)

DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04TH JUNE, 2020 AND SUBSEQUENT ORDER(S)

| (To be typed a | | bmitted in th | | | | | | | | | | |
|--|-------|---------------------------------|--|--------|---------|---------------------|----------------------------|-------------|----------|--------|---------------|----------------------|
| To, | | | | | | | | | | | | |
| (Write Name & | Addre | ess of Officer | of BHEL inv | /iting | the Te | nder) | | | | | | |
| Dear Sir, | | | | | | | | | | | | |
| Sub : Declaration India), Order 20 | _ | | | | | | | | Preferer | nce to |) Ma | ke in |
| Ref: 1) GeM Bid 2) All othe | • | ification No: inent issues t | | | | | | | | | | |
| We hereby certification the organization 'Class-I local su Make in India), (| here) | has a local o | content of _ I local sup _l | plier' | _ % and | d this m defined | neets the l I in Public | ocal Pro | conter | nt req | uire Prefe | ment for rence to |
| The details of | the | location(s) | at which | the | local | value | addition | is | made | are | as | follows: |
| 1 | _ | | 2 | | _ | | | | | | | |
| 3 | _ | | 4 | | _ | | | | | | | |
| Thanking you, Yours faithfully, | | | | | | | | | | | | |
| | | | | | | | | (Si | gnatur | e, Da | te 8 | ર Seal of |

** - Strike out whichever is not applicable.

. .

Note:

SIZE A3

DEAWING No. 3-12120-56000

THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETERIMENTAL TO THE INTEREST OF THE COMPANY.

COPYRIGHT AND CONFIDENTIAL

INDUSTRIAL VIDEOIMAGESCOPE SYSTEM ALONG WITH ACCESSORIES

THE SYSTEM SHOULD CONSIST OF VIDEO-PROBE (WITH CCD LOCATED AT THE TIP OF THE PROBE), LIGHT AND POWER SOURCE AS REQUIRED, CCD CAMERA, CAMERA CONTROL UNIT FUNCTION, HANDY LCD MONITOR (SIZE NOT LESS THAN 6.0" INCH), SUITABLE USB VIDEO PORT WITH SOFTWARE FOR SIMULTANEOUS VIEW OF INSPECTION AT PERSONAL COMPUTER AND OTHERS ESSENTIAL ACCESSORIES ALONG WITH NECESSARY SOFTWARE FOR VIEWING, RECORDING AS WELL AS MEASURING OF DEFECTS OR DISCONTINUITY. EQUIPMENT SHOULD COMPLY BELOW SPECIFICATION.

| 1. INSERTION TUBE LENGTH & DIAMETER 3.5 METER & 6.0 MM 2. LCD MAY LIGHT MONITOR. THE LCD SCREEN SHOULD BE INTEGRATED WITH THE EQUIPMENT AND SHOULD NOT BE OFFERED AS A SEPARATE MONITOR. 3. POWER SUPPLY & BATTERY POWER BACKUP 100-240VAC/50HZ SINGLE PHASE , 2 HRS 100-240V | | | |
|--|-----|---|--|
| EQUIPMENT AND SHOULD NOT BE OFFERED AS A SEPARATE MONITOR. 1. PROBE TECHNOLOGY & PROBE CONSTRUCTION. TUNGSTEN BRAID 1. LIGHT SOURCE LED HAVING ILLUMINATION AT THE TIP FOR ADEQUATE VISIBILITY OF THE COMPONENT BEING VIEWED EVEN IN DARK. EQUIPMENT SHOULD HAVE FEATURE FOR AUTOMATIC LIGHT ILLUMINATION CONTROL. 1. UNIT PROTECTION (MIN.) IP55 RATING 1. UNIT PROTECTION (MIN.) IP55 RATING 1. EQUIPMENT PROTECTION (MIN.) IP55 RATING 1. EQUIPMENT PROTECTION (MIN.) IP55 RATING 2. EQUIPMENT PROTECTION (MIN.) EQUIPMENT SHOULD PROTECTED AGAINST, VIBRATION (GENERAL VIBRATION TEST), SHOCK (TRANSIT DROP TEST), WATER RESISTANCE, HUMIDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERENCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 1. SOFTWARE & ARTICULATION CONTROL 1. HAND HELD CONTROLLER & OPERATIONAL KEYS (FEQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, GUIVE LAST IMAGE RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECORD ONLY. 2. PDF VIEW EQUIPMENT FUNCTION: STERCE OF FARTURE TO UPLOAD & VIEW PDF. 3. MEASUREMENT & MEASUREMENT FUNCTION: STERCE OF FARTURE TO UPLOAD & VIEW PDF. 4. DISTANCE DISTANCE BETWEEN TWO POINTS. 5. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE 6. DISTANCE USE FLASH MEMORY 1 GB MINIMUM. | 1. | INSERTION TUBE LENGTH & DIAMETER | |
| 3. POWER SUPPLY & BATTERY POWER BACKUP 100-240VAC/50HZ SINGLE PHASE , 2 HRS | 2. | LCD MONITOR | |
| 4. PROBE TECHNOLOGY & PROBE CONSTRUCTION. TUNGSTEN BRAID 5. LIGHT SOURCE LED HAVING ILLUMINATION AT THE TIP FOR ADEQUATE VISIBILITY OF THE COMPONENT BEING VIEWED EVEN IN DARK. EQUIPMENT SHOULD HAVE FEATURE FOR AUTOMATIC LIGHT ILLUMINATION CONTROL. 6. WEIGHT OF EQUIPMENT MAX. 4.5 KGS. 7. UNIT PROTECTION (MIN.) IP55 RATING 8. ARTICULATION & CONTROL MIN 130 DEGREE, 4 WAY, SCOPE TIP ARTICULATION WITH ELECTRONIC POWER—ASSISTED, MANUAL ARTICULATION, CONTROL IS BY JOY STICK ONLY 9. EQUIPMENT PROTECTION EQUIPMENT SHOULD PROTECTED AGAINST, VIBRATION (GENERAL VIBRATION TEST), SHOCK (TRANSIT DROP TEST), WATER RESISTANCE, HUMIDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERENCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS FREQUENTLY USED FUNCTIONS SOLD AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECALL 12. POF VEW 12. POF VEW 13. MEASUREMENT & MEASUREMENT FUNCTION: 14. TEMPERATURE SENSOR 15. IMAGE RESOLUTION 16. IMAGE RESOLUTION 17. STORAGE 18. DOITH COMMAND 19. STORAGE 19. BARCA 10. SOLITAL ZOOM 10. SOLITAL ZOOM 11. MAGE RESOLUTION 11. MERE PERSOLUTION 12. STORAGE 13. MEASUREMENT & MEASUREMENT FUNCTION: 14. TEMPERATURE SENSOR 15. IMAGE RESOLUTION 16. IMAGE RESOLUTION 17. STORAGE 18. DOITH LED HAVEN THE COMPONENT OF THE TEMPERATURE WARNING. 19. MAGE RESOLUTION 19. STORAGE 19. BARCA 19. BARCA | | | EQUIPMENT AND SHOULD NOT BE OFFERED AS A SEPARATE MONITOR. |
| 5. LIGHT SOURCE LED HAVING ILLUMINATION AT THE TIP FOR ADEQUATE VISIBILITY OF THE COMPONENT BEING VIEWED EVEN IN DARK. EQUIPMENT SHOULD HAVE FEATURE FOR AUTOMATIC LIGHT ILLUMINATION CONTROL. 6. WEIGHT OF EQUIPMENT MAX. 4.5 KGS. 7. UNIT PROTECTION (MIN.) 8. ARTICULATION & CONTROL MIN 130 DEGREE, 4 WAY, SCOPE TIP ARTICULATION WITH ELECTRONIC POWER—ASSISTED, MANUAL ARTICULATION, CONTROL IS BY JOY STICK ONLY 9. EQUIPMENT PROTECTION EQUIPMENT SHOULD PROTECTED AGAINST, VIBRATION (GENERAL VIBRATION TEST), SHOCK (TRANSIT DROP TEST), WAITER RESISTANCE, HUMIDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERENCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS EQUIPMENT SHOULD HAND HELD CONTROLLER, ALL QUICK ACCESS BUTTON ON CONTROLLER FOR FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECALL 12. PDF VEW EQUIPMENT SHOULD HAVE FEATURE TO UPLOAD & VIEW PDF. 13. MEASUREMENT & MEASUREMENT FUNCTION: A DISTANCE DISTANCE BETWEEN TWO POINTS. B POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGOMAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE RESOLUTION IMAGE RESOLUTION 1 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | 3. | POWER SUPPLY & BATTERY POWER BACKUP | 100-240VAC/50HZ SINGLE PHASE , 2 HRS |
| EVEN IN DARK. EQUIPMENT SHOULD HAVE FEATURE FOR AUTOMATIC LIGHT ILLUMINATION CONTROL. 6. WEIGHT OF EQUIPMENT MAX. 4.5 KGS. 7. UNIT PROTECTION (MIN.) IP55 RATING 8. ARTICULATION & CONTROL MIN 130 DEGREE, 4 WAY, SCOPE TIP ARTICULATION WITH ELECTRONIC POWER—ASSISTED, MANUAL ARTICULATION, CONTROL IS BY JOY STICK ONLY 9. EQUIPMENT PROTECTION EQUIPMENT SHOULD PROTECTED AGAINST, VIBRATION (GENERAL VIBRATION TEST), SHOCK (TRANSIT DROP TEST), WATER RESISTANCE, HUMIDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERENCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL DEDICATED JOY STICK FOR SOFTWARE CONTROL & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS 12. PDF VIEW 13. MEASUREMENT & MEASUREMENT FUNCTION: 14. DISTANCE 15. DISTANCE 16. DISTANCE 17. ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER—DEFINED PLANE. 18. DISTANCE 19. DISTANCE 10. STANCE 10. ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER—DEFINED PLANE. 10. DISTANCE 11. ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER—DEFINED PLANE. 12. DISTANCE 13. MEASUREMENT & MEASUREMENT FUNCTION: 14. TEMPERATURE SENSOR 15. IMAGE RESOLUTION 16. MAGE RESOLUTION 17. STORAGE 18. WEIGHT SHOULD HAVE PEATURE AND A USER—DEFINED PLANE. 19. MAGE RESOLUTION 10. MAGE RESOLUTION 11. MAGE RESOLUTION 11. MAGE RESOLUTION 12. POR VIEW 13. MAGE RESOLUTION 14. TEMPERATURE WARNING. 15. MAGE RESOLUTION 16. MAGE RESOLUTION 17. STORAGE 18. POINT ON LINE 19. | 4. | PROBE TECHNOLOGY & PROBE CONSTRUCTION. | TUNGSTEN BRAID |
| 6. WEIGHT OF EQUIPMENT MAX. 4.5 KGS. 7. UNIT PROTECTION (MIN.) IP55 RATING 8. ARTICULATION & CONTROL MIN 130 DEGREE, 4 WAY, SCOPE TIP ARTICULATION WITH ELECTRONIC POWER—ASSISTED, MANUAL ARTICULATION, CONTROL IS BY JOY STICK ONLY 9. EQUIPMENT PROTECTION EQUIPMENT SHOULD PROTECTED AGAINST, VIBRATION (GENERAL VIBRATION TEST), SHOCK (TRANSIT DROP TEST), WATER RESISTANCE, HUMDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERNCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROLLAR ACCESS, QUICK LAST IMAGE RECALL 12. PDF VIEW EQUIPMENT SHOULD HAVE FEATURE TO UPLOAD & VIEW PDF. 13. MEXICAL MEASUREMENT & MEASUREMENT FUNCTION: A. DISTANCE DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGODAL STANCE BETWEEN TWO POINTS. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE RESOLUTION IMAGE RE | 5. | LIGHT SOURCE | |
| 7. UNIT PROTECTION (MIN.) 1P55 RATING 8. ARTICULATION & CONTROL MIN 130 DECREE, 4 WAY, SCOPE TIP ARTICULATION WITH ELECTRONIC POWER—ASSISTED, MANUAL ARTICULATION, CONTROL IS BY JOY STICK ONLY 9. EQUIPMENT PROTECTION EQUIPMENT SHOULD PROTECTED AGAINST, VIBRATION (GENERAL VIBRATION TEST), SHOCK (TRANSIT DROP TEST), WATER RESISTANCE, HUMIDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERENCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS USER FRIENDLY HAND HELD CONTROLLER. ALL QUICK ACCESS BUTTON ON CONTROLLER FOR FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECOAL 12. PDF VIEW EQUIPMENT SHOULD HAVE FEATURE TO UPLOAD & VIEW PDF. 13. MEASUREMENT & MEASUREMENT FUNCTION: A DISTANCE DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE RESOLUTION IN IMAGE RES | 6 | WEIGHT OF FOUIPMENT | |
| 8. ARTICULATION & CONTROL MIN 130 DEGREE, 4 WAY, SCOPE TIP ARTICULATION WITH ELECTRONIC POWER—ASSISTED, MANUAL ARTICULATION, CONTROL IS BY JOY STICK ONLY 9. EQUIPMENT PROTECTION EQUIPMENT PROTECTION EQUIPMENT SHOULD PROTECTED AGAINST, VIBRATION (GENERAL VIBRATION TEST), SHOCK (TRANSIT DROP TEST), WATER RESISTANCE, HUMIDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERENCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECALL 12. PDF VIEW 13. MEASUREMENT & MEASUREMENT FUNCTION: A DISTANCE DISTANCE DISTANCE DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER—DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER—DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE RESOLUTION IMAGE RESOLUTION — H 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | | · | |
| POUPMENT PROTECTION EQUIPMENT SHOULD PROTECTED AGAINST, VIBRATION (GENERAL VIBRATION TEST), SHOCK (TRANSIT DROP TEST), WATER RESISTANCE, HUMIDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERENCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECALL 12. PDF VIEW EQUIPMENT SHOULD HAVE FEATURE TO UPLOAD & VIEW PDF. 13. MEASUREMENT & MEASUREMENT FUNCTION: A DISTANCE DISTANCE DISTANCE DISTANCE BETWEEN TWO POINTS. DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE RESOLUTION IMAGE RESOLUTION IMAGE RES | | ` ' | MIN 130 DEGREE, 4 WAY, SCOPE TIP ARTICULATION WITH ELECTRONIC POWER-ASSISTED, MANUAL |
| TEST), WATER RESISTANCE , HUMIDITY, SAND AND DUST, SALT FOG, ELECTROMAGNETIC INTERFERENCE. BIDDERS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS BELICATED JOY STICK FOR SOFTWARE CONTROL & ARTICULATION CONTROL USER FRIENDLY HAND HELD CONTROLLER. ALL QUICK ACCESS BUTTON ON CONTROLLER FOR FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECALL 12. PDF VIEW 13. MEASUREMENT & MEASUREMENT FUNCTION: A. DISTANCE DISTANCE DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE RESOLUTION IMAGE RESOLUTION IMAGE RESOLUTION IMAGE RESOLUTION 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | 0 | FOLLIDMENT DROTECTION | |
| BIDDÉRS TO SUBMIT TEST CERTIFICATE FOR THE SAME ALONG WITH TECHNICAL BID. 10. SOFTWARE & ARTICULATION CONTROL 11. HAND HELD CONTROLLER & OPERATIONAL KEYS PREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROLLER. ALL QUICK ACCESS BUTTON ON CONTROLLER FOR FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECALL 12. PDF VIEW 13. MEASUREMENT & MEASUREMENT FUNCTION: A. DISTANCE DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 16. IMAGE RESOLUTION IM | 9. | EQUIPMENT PROTECTION | |
| 11. HAND HELD CONTROLLER & OPERATIONAL KEYS Ward of the point on line Perpendicular distance between a point and a user-defined line | | | |
| FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECALL 12. PDF VIEW | 10. | SOFTWARE & ARTICULATION CONTROL | DEDICATED JOY STICK FOR SOFTWARE CONTROL & ARTICULATION CONTROL |
| STILL/VIDEO, ARTICULATION CONTROL, ARTICULATION LOCK, MENU ACCESS, SAVED RECORDING INDEX ACCESS, QUICK LAST IMAGE RECALL 12. PDF VIEW EQUIPMENT SHOULD HAVE FEATURE TO UPLOAD & VIEW PDF. 13. MEASUREMENT & MEASUREMENT FUNCTION: STEREO – MEASUREMENT ONLY. A. DISTANCE DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 5X DIGITAL ZOOM 16. IMAGE RESOLUTION IMAGE RESOLUTION - H 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | 11. | HAND HELD CONTROLLER & OPERATIONAL KEYS | USER FRIENDLY HAND HELD CONTROLLER. ALL QUICK ACCESS BUTTON ON CONTROLLER FOR |
| ACCESS, QUICK LAST IMAGE RECALL 12. PDF VIEW EQUIPMENT SHOULD HAVE FEATURE TO UPLOAD & VIEW PDF. 13. MEASUREMENT & MEASUREMENT FUNCTION: STEREO – MEASUREMENT ONLY. A. DISTANCE DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 5X DIGITAL ZOOM 16. IMAGE RESOLUTION IMAGE RESOLUTION – H 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | | | FREQUENTLY USED FUNCTIONS SUCH AS LIVE MODE, BRIGHTNESS, ZOOM, FREEZE IMAGE, RECORD |
| 12. PDF VIEW EQUIPMENT SHOULD HAVE FEATURE TO UPLOAD & VIEW PDF. 13. MEASUREMENT & MEASUREMENT FUNCTION: STEREO — MEASUREMENT ONLY. A. DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER—DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER—DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2—STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 5X DIGITAL ZOOM 16. IMAGE RESOLUTION IMAGE RESOLUTION — H 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | | | |
| 13. MEASUREMENT & MEASUREMENT FUNCTION: A. DISTANCE DISTANCE BETWEEN TWO POINTS. B. POINT ON LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 16. IMAGE RESOLUTION IMAGE RESOLUTION - H 768 X V 576 (PIXEL) 17. STORAGE DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. WORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE | | | · |
| A. DISTANCE B. POINT ON LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 16. IMAGE RESOLUTION IMAGE RESOLUTION IMAGE RESOLUTION IMAGE RESOLUTION IMAGE RESOLUTION – H 768 X V 576 (PIXEL) USB FLASH MEMORY 1 GB MINIMUM. | | | |
| B. POINT ON LINE PERPENDICULAR DISTANCE BETWEEN A POINT AND A USER-DEFINED LINE C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 5X DIGITAL ZOOM 16. IMAGE RESOLUTION IMAGE RESOLUTION - H 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | 13. | | |
| C. DEPTH ORTHOGONAL DEPTH/HEIGHT DISTANCE BETWEEN A POINT AND A USER-DEFINED PLANE. D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 5X DIGITAL ZOOM 16. IMAGE RESOLUTION IMAGE RESOLUTION - H 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | Α | | |
| D. AREA MULTIPLE POINT CIRCUMFERENCE AND AREA MEASUREMENT. 14. TEMPERATURE SENSOR EQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING. 15. IMAGE CONTROL 5X DIGITAL ZOOM 16. IMAGE RESOLUTION IMAGE RESOLUTION - H 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | | | |
| 14.TEMPERATURE SENSOREQUIPMENT SHOULD HAVE 2-STAGE INDICATOR FOR HIGH TEMPERATURE WARNING.15.IMAGE CONTROL5X DIGITAL ZOOM16.IMAGE RESOLUTIONIMAGE RESOLUTION - H 768 X V 576 (PIXEL)17.STORAGEUSB FLASH MEMORY 1 GB MINIMUM. | | | |
| 15.IMAGE CONTROL5X DIGITAL ZOOM16.IMAGE RESOLUTIONIMAGE RESOLUTION - H 768 X V 576 (PIXEL)17.STORAGEUSB FLASH MEMORY 1 GB MINIMUM. | | | |
| 16. IMAGE RESOLUTION IMAGE RESOLUTION — H 768 X V 576 (PIXEL) 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | | | |
| 17. STORAGE USB FLASH MEMORY 1 GB MINIMUM. | 15. | | |
| | | | |
| 18. OPERATING TEMPERATURE INSERTION TUBE -25°C TO 100°C IN AIR & SYSTEM -10°C TO 40°C IN AIR. | | | |
| | 18. | OPERATING TEMPERATURE | INSERTION TUBE -25°C TO 100°C IN AIR & SYSTEM -10°C TO 40°C IN AIR. |

| | | 18. OPERATING TEM | PERAII | URE INS | EKIION | I INRF | -25°C 10 | 100°C 1 | N AIR & | : SYSTEM -10°C T | O 40°C IN AIR. | | | | | | | |
|---------------------------|---------|---------------------|--------|------------------------------|----------------|--------------------|---------------------------|---------|------------------|--------------------|-------------------------|------------|----------|-------|-------------|-------------|-------------------|---------------|
| | | | | | -GN | //S No. | / C E | 3 O M | STATUS OF DRG | TYPE OF PROD | UCT STEA | M TURI | BINE | | | | | |
| MAT | l'ERIAI | CODE:-W90312120 | 010 | | A | GREED DEPT | NAME | SIGN | DATE | OR OF OUR | OMED (DD0 150 | - | | | | | | |
| | | | GRA | DE OF UNTOL.DIM | | | | | | NAME OF CUST | OMER/PROJEC | | | | | | | |
| | | | M / C | CG¢/M/F AA0230208 | - | | | | | <i>बीएचईए</i> न DI | | | | | NAME | SIGN | DATE | |
| | | | | | | | | | | B | HARAT HEAV | 7 ELECTRIC | ALS LTD. | DKN | AFZAL KHAN | SD/- | 05.02.14 | NO. OF VAR |
| WELDING-#/B/¢/Ø AA0621104 | | | | | | | | l | HHH D | DANIDI | RANIPUR, HARDWAR | | | SUNNY | SD/- | 07.02.14 | | |
| | | | GAS | CUTTING-'T3'AA0621101 | | | | | | | INAINIFUIT, ITAILD WAIT | | | | | | 10.02.14 | 73 74 |
| REV | DATE | ALTERED | REV | DATE ALTERED ANOOP | REV | DATE | ALTERED | SUNN' | Y | DEPT STE | | SCALE | WEIGHT | (KG) | REF. T | O ASSY. DRO | | NO. OF |
| | | CHECKED | 02 | 16.05.19 CHECKED P.KANAUJIA | 01 | 19.01.15 | CHECKED |) ALOK | SINGH | CODE 4011 | | 1: 2 | | | | | 100. | I — I |
| | | | | DRAWING UPDATED. | | SHEET | SHEET NO.1 DRAWING SUPERS | | | CODE 4011 | ' | | | | | | | 75 77 |
| | | | | | | UNDER SAME NUMBER. | | | | TITLE : | | | lc, | ARD | DRAW | NG NO. | | |
| | | | | 10 DED 0) 1 NO SEE 10 FOOTO | | SHEET | SHEET NO.2 ADDED | | | DODDGG | | тилап | | ODE | 9_1919 | 20-56000 | | |
| | | | | AS PER C\A NO. STE-16-F0012. | | AS PE | PER C\A NO. STE-15-F00 | | | ROKESCO | OPIC VIDE(|) IMAGE | KIT C | ODL | $7 0^{-1}$ | 20-20000 | 22 | 2 23 24 |
| | | | | | | | | | | | | | | | SHEET No. | 01 No. 0 | F SHEETS | 02 |

SIZE A3

THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETERIMENTAL TO THE INTEREST OF THE COMPANY.

DRAWING No. 3-12120-56000

THE EQUIPMENT SHOULD HAVE THE BELOW OPTICAL ADAPTORS:

- A. VIEWING TIP VIEWING TIP ADAPTORS (INTERCHANGEABLE) OF DIAMETER AS COMPATIBLE WITH THE PROBE AS REQUIRED :
 - a. FORWARD VIEW

| FIELD OF VIEW | 120° |
|-------------------|-------------------|
| PURPOSE | OPTICAL IMAGING |
| DIRECTION OF VIEW | FORWARD |
| DEPTH OF FIELD | 19 MM TO INFINITY |

b. SIDE VIEW FIELD (

| FIELD OF VIEW | 120° |
|-------------------|-----------------|
| PURPOSE | OPTICAL IMAGING |
| DIRECTION OF VIEW | SIDE |
| DEPTH OF FIELD | 4 MM TO 100 MM |

- B. STEREO MEASUREMENT TIP STEREO TIP ADAPTORS (INTERCHANGEABLE) OF DIAMETER AS COMPATIBLE WITH THE PROBE AS REQUIRED.
 - a. FORWARD VIEW

| FIE | ELD OF VIEW | 60D / 60D |
|-----|-----------------|---------------|
| Pι | JRPOSE | MEASUREMENT |
| DII | RECTION OF VIEW | FORWARD |
| DE | PTH OF FIELD | 5 MM TO 80 MM |

BILL OF MATERIAL FOR INDUSTRIAL VIDEO IMAGE SCOPE SYSTEM WITH ACCESSORIES

| SL. NO. | BHEL REQUIREMENT | QTY. |
|---------|---|-------|
| | VIDEO IMAGE SCOPE WITH HANDSET SCREEN , CONTROL UNIT, LIGHT SOURCE (AS REQUIRED), | 1 SET |
| | INSERTION PROBE (AS PER SPECIFICATION) (6 MM & 3.5 METER), WITH PRE LOADED | |
| | SOFTWARE & ACCESSORIES FOR VIEWING, RECORDINGS WELL AS MEASURING OF DEFECTS OR | |
| | DISCONTINUITY ALONG WITH CARRYING CASE.EQUIPMENT SHOULD COMPLY BELOW SPECIFICATION. | |
| 2. | VIEWING TIP (FORWARD) (AS PER SPECIFICATION) | 1 SET |
| 3. | VIEWING TIP (SIDE) (AS PER SPECIFICATION) | 1 SET |
| 4. | STEREO MEASUREMENT TIP(FORWARD) (AS PER SPECIFICATION) | 1 SET |
| 5. | RECHARGEABLE BATTERY FOR SYSTEM | 1 SET |
| 6. | BATTERY CHARGER / AC ADAPTOR | 1 SET |
| 7. | FLEX & STAY GUIDE TUBE 1 METER FOR 6MM PROBE DIA. | 1 SET |

NOTES:

- 1. VENDOR HAS TO ARRANGE A DEMONSTRATION OF SUPPLIED EQUIPMENT AT SITE.
- 2. THREE COPIES OF OPERATION & MAINTENANCE MANUAL (INCLUDING DIAGNOSTIC PHILOSPHY i.e. RUN/REPAIR/REPLACE CRITERIA) IN SOFT COPY AS WELL AS IN HARD COPY MUST BE SUPPLIED ALONG WITH THE EQUIPMENT.
- 3. GUARANTEE CERTIFICATE FOR 12 MONTHS FROM DATE OF COMISSIONING OR 18 FROM DATE OF DESPATCH, WHICHEVER IS EARLIER TO BE PROVIDED.
- 4. SUPPLIER SHOULD HAVE FULL FLEDGE SERVICE CENTER FOR VIDEO

| Drawir | SCOPE IN INDIA. | | 1/V L 1 | OLL ILL | DOL SLIVIV | | | V TOIV V | VIDEO | | | | | | | MATERIA | L CODE :-W | 90312120 | 0010 |
|------------|-----------------|-----|------------------|-------------|-------------|----------------|------------------------------|-------------------|-------|------------------|----------------------------|------------------|------------|-----------|--------|--------------------|----------------|----------|---------|
| Ref.I | | | | | | -GM | S No., | ≠ C E | 3 O M | STATUS OF DRG | TYPE OF PRO | DUCT STE | EAM TU | JRBINE | | | | | |
| | ı | | | | | AG D | REED EPT | NAME | SIGN | DATE | NAME OF CUS | STOMED /DDO I | FCT | | | | | | |
| 0. | | GRA | DE OF | UNTOL. | MIC | | | | | | INAME OF COS | | | | | I | | T | |
| Date | | M/C | GØ/ | /M/F AAC | 0230208 | | | | | | <i>बीएचईए</i> न । | BHARAT HEA | AVY ELECT | RICALS LT | D DRN | NAME AFZAL KHA | SIGN N SD/- | 05.02.14 | NO. OF |
| ಷ | | WEL | DING- | #/B/¢/p | Ø AA0621104 | | | | | | BHH | | PUR, HAR | | CHD | SUNNY | SD/- | 07.02.14 | _ |
| Ngl8 | | GAS | CUTT | ING-'T3'A | A0621101 | | | | | | | IVAIVI | I OI, IIAI | D II AIV | APPE | DKRAY | SD/- | 10.02.14 | 73 74 |
| REV DAT | | | DATE | ALTERED | ANOOP | REV | DATE | ALTERED | SUNN | Υ | DEPT STE | | SCALE | WEIGH | T (KG) | REF. | TO ASSY. DR | G. ITEM | NO. OF |
| 9 | CHECKED | 02 | 16.05.19 | | P.KANAUJIA | 01 | 19.01.15 | OFFICIALE | | SINGH | CODE 4011 | │ □ ● | 1:2 | _ | _ | - | | | 75 77 |
| z | | | DRAWING UPDATED. | | | | SHE | SHEET NO.2 ADDED. | | | TITLE : | | | | CARD | DRAW | /ING NO. | l . | 1 77 |
| entor | | | AS PER | C\A NO. STE | E-16-F0012. | | AS PER C\A NO. STE-15-F0064. | | | F0064. | BORESCOPIC VIDEO IMAGE KIT | | | | CODE | ₇ 3–123 | 120-56000 | 22 | 2 23 24 |
| Ţ | | | | | | | | | | | | | | | | SHEET No | . 02 No. 0 | F SHEETS | 02 |