

Directorate of Technical Education and Training, Odisha, Cuttack Invites

REQUEST FOR PROPOSAL (RFP)

TO

SETUP CENTRE OF EXCELLENCE IN ADVANCED
WELDING AT GOVT. ITI JHARSUGUDA, GOVT. ITI
ANADPUR & GOVT. ITI KUTRA UNDER OMBADC
DISTRICTS OF ODISHA

CORRIGENDUM 2

With extension of last date for submission of bids till 10th January'2024

NIT NO: DTE&T/2023-24/14915

DATE: 26.10.2023

<u>Issuer:</u>

Directorate of Technical Education and Training, Odisha (DTE&T) KillaMaidan, Buxi Bazar, Cuttack-753001 Phone No-0671(2301061), Fax-0671(2301961)

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DTE&T invites RFP to setup Centre of Excellence on advanced welding at Govt.ITI Jharsuguda, Govt. ITI Anandpur & Govt. ITI Kutra under OMBADC districts of Odisha

Directorate of Technical Education & Training, Odisha

NIT No: DTE&T/2023-24/14915

Cuttack, Dated: 26.10.2023

Directorate of Technical Education & Training, Odisha, invites Technical and Financial Proposals from the world's leading welding OEM companies to setup Centre of Excellence on advanced welding on **Turnkey Basis** and also provide technical training at Govt.ITI Jharsuguda, Govt. ITI Anandpur & Govt. ITI Kutra, under OMBADC districts of Odisha.

Bidders are requested to submit their proposals to the undersigned as per the schedule indicated in the Fact Sheet, by post (Registered/Speed) or by persons (in hand) at the office of the DTE&T, Odisha. Based on the evaluation method mentioned in the RFP, the bidder will be selected.

For any further clarifications, please contact Dr. P K Mohanty (Deputy Director_Procurement, DTE&T), on Mobile: (+91) 9437307190 or Email: dtetodisha.procurement@gmail.com during official working hours only (10 am to 5 pm).

Sd/ DTE&T, Odisha

DISCLAIMER

The information contained in this Request for Proposal (herein after referred to either "TENDER") document or subsequently provided to the Bidders, whether verbally or in documentary or any other form by or on behalf of the Directorate of technical Education and Training herein after referred to as DTE&T, ODISHA, or any of their employees or advisors, is provided to the Bidder(s)on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided.

DTE&T, ODISHA reserves the right to reject any or all of the proposals submitted in response to this RFP document at any stage without assigning any reasons whatsoever. DTE&T, ODISHA also reserves the right to withhold or withdraw the process at any stage with intimation to all who submitted the RFP response. DTE&T, ODISHA reserves the right to change/ modify/amend any or all of the provisions of this RFP Document. Such changes would be posted only in its website (www.dtetodisha.gov.in). Prospective bidders are requested to visit the website frequently to keep them abreast with the latest developments on this RFP.

This is not an agreement and is not an offer or invitation to enter into an agreement of any kind with any party. The purpose of this RFP is to provide interested parties with information that may be useful to them in making their technical & financial offers (Bids) pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the DTE&T, ODISHA in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP document may not be appropriate for all persons, and it is not possible for the DTE&T, ODISHA, their employees or advisors to consider the business/investment objectives, financial situation and particular needs of each Bidder who reads or uses this RFP document.

Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP document and wherever necessary obtain independent advice from appropriate sources. DTE&T, ODISHA, their employees and advisors make no representation nor warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the RFP document.

Fact Sheet

Sl. No.	Milestone	Date
1	Request for Proposal (RFP) document made available to the bidders	31st October'2023
2	Last date for receiving queries through email (ifany)	08 th November'2023 by 2 PM
3	Pre-Bid Meeting/Response to queries	10 th November'2023 at 3PM (through virtual meeting)
4	Issue of Corrigendum	23 rd November'2023 by 5 PM
5	Issue of second Corrigendum	07 th December'2023 by 5 PM
6	Last date for receipt of Technical and Financial proposals (Sealed Envelope)	10 th January'2024 by 5 PM
7	Opening of Technical Proposals& Presentation and evaluation	To be communicated
8	Opening of Financial proposals of Bidders whoqualify pre-qualification (technical) criteria	To be communicated
9	Bid Processing Fee (Non-refundable) (DemandDraft)	INR 20,000/- (Rupees Twenty Thousand Only)
10	Earnest Money Deposit (EMD) (Bank Guarantee)	INR 10,00,000/- (Rupees Ten Lakhs Only)
11	Performance Bank Guarantee	10% of Bid Value
12	Method of Selection	Quality and Cost-Based Selection (QCBS)
13	Contact Details	Directorate of Technical Education & Training, Odisha Killa Maidan, Buxi Bazar, Cuttack-753001 Phone No- (+91) 9437307190 Email-dtetorissa@gmail.com, dtetodisha.procurement@gmail.com

Note:

- 1. DTE&T, ODISHA reserves the right to change any schedule. Please visit the website mentioned in the RFP document regularly for the same.
- 2. Proposals must be submitted before the date, time and venue mentioned in the Fact Sheet. Proposals that are received after the deadline will not be considered.

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1. Introduction:

The Directorate of Technical Education and Training (DTE&T), Odisha, Cuttack looks after education at Technical Institutes/Colleges, Diploma and ITI level. It also provides Vocational Education in order to prepare the Youth for self-employment. The Department also promotes professional courses in Government and Private Sector.

DTE&T invites proposals from world leading welding OEM companies "For selection of a Technology Partner to setup Centre of Excellences (CoEs) on advanced welding on **turnkey basis** at **Govt. ITI Jharsuguda**, **Govt. ITI Anandpur** & **Govt. ITI Kutra** of Odisha.

It is a turnkey project where the Technology Provider will be responsible for the supply of the technological product or equipment/machines (both Hardware and Software), commissioning of it and should provide handholding training for 1 year along with run the CoEs initially for a period of 1 Year, which may be extended for another 2 Years (as per the requirement of DTE&T Odisha) after mutual agreement. It must be state-of-the-art and industry relevant and should cater to the current and futuristic requirements of the industry.

DTE&T Odisha will provide clean space to setup the Center of Excellence. Technology Partner shall provide the Design of the labs but the specifications for Civil, Electrical and other works will be provided by DTE&T Odisha and Technology Partner shall setup the Centre of Excellence accordingly. Complete infrastructure setup will be the responsibility of the Technology Partner. These Center of Excellences should focus on developing skill excellence in the field of Welding and Industry Automation. Through the training and implementation of industry-relevant technology and processes, the center should meet the demands of the industries.

2. Project overview and objectives:

These COEs should bridge the skill gap of students vis-à-vis industry needs and impart state-of-the-art industry-oriented training to help foster significant innovation and learning in technical education. The center is aimed at Industry connected skill development programs and hence the hand-holding training by the Technology Partner for minimum 1 year, will be the part of the Memorandum of Agreement (MoA).

This center should be on Build, Operate and Transfer Mode. All the Hardware should be of industrial standards. The software should not be restricted to educational limits. Should be provided with industrial features allowing DTE&T to offer Industrial consultancy apart from the skill development. DTE&T will provide the space and workshop at identified institution for the setup of CoEs. The role of the company/firm will be to supply of equipment, installation (including minor civil works for installation), commissioning and complete setup of CoEs, provide advanced skill training with international quality standard which will uplift the skill of state youth and assist them in finding sustainable placements in different industries by Industry connect programs. The company/firm will professionally operate and manage the CoEs with institute faculties for the agreed period under supervision of DTE&T.

3. Scope of the Project:

Project initiative can be broadly categorized as setting up of a state-of-art welding skill center comprising of latest IoT based advance technology and automation in welding and conducting Skill Training programs with required quality standards by the reputed Advanced Welding OEM companies.

The CoEs, to be designed by the Technology Partner (TP), is envisioned to be setup as a State of the Art Centre of Excellences(CoEs) in which the TP brings in their best in class equipment/ tools/ machines/ simulators (commonly referred to as equipment) to be used for training purposes. These CoEs will be located in an appropriate space offered by the DTE&T. These CoEs will be managed professionally by the Technology Partner. The infrastructure for these CoEs will be made ready by Technology partner as per the proposed design by them and the specifications finalized and provided by DTE&T Odisha.

These CoEs will run under the overall operational management of the CoE Management Committee. The CoE Management Committee, under the Guidance of the DTE&T Odisha, will be responsible for devising and implementing a three-year rolling plan and ensuring that these CoEs are constantly upgraded and provides a high technology ecosystem for skilling/ up- skilling/ re-skilling/ cross-skilling and multi-skilling. The Technology Partner, under the Guidance of the CoE Management Committee, will be expected to assist the DTE&T Odisha to mobilize students from other Private Technical Training Institutes/employees from the relevant industries for skilling, upskilling or re-skilling training, which will help to generate internal revenues (IRG) at these CoEs, and can help in the sustainability of these CoEs.

Overall administrative, quality and financial responsibilities including the management of the CoE, marketing, branding, management of hostels etc. will be the responsibility of the DTE&T. But, development of training course content, training plan, deployment of technical experts to provide training, assessments, award certificates to the successful trainees/trainers, provide placement support etc. will be the responsibility of the Technology Partner.

3.1. SCOPE OF THE TECHNOLY PARTNER (TP)

- 1. The CoEs, to be designed by the Technology Partner, is envisioned to be setup as a State of the Art Centre of Excellence (CoE) in which the selected company brings in their best in class equipment/ tools/ machines/ simulators (commonly referred to as equipment) to be used for training purpose.
- 2. Supply, Installation & Commissioning of all the equipment. The TP must supply all new equipment/machineries at CoE.
- 3. All safety features including Welding Booths and supply of Gas Cylinders (minimum 2 cylinders of each CO2, Argon -CO2 Mixture Gas, Argon Gas, Oxygen Gas, DA Gas etc.) for each CoE.
- 4. Supply of necessary safety certificates from either national or international (for imported equipment) standard accreditation agency. Fire safety certificates for each supplied equipment and firefighting equipment should be supplied.
- 5. The company shall provide warranty of supplied machineries/equipment for 36 months from the date of commissioning. The warranty does not include tools & tackles, consumables, PPE etc.
- 6. Necessary minor civil works for installation of the equipment/machines at CoEs, falls within the ambit of scope of work of selected bidder.
- 7. Arrangement of Fire safety equipment like Carbon Dioxide or Dry Chemical Fire Extinguishers or any superior fire safety equipment with sensors.
- 8. Provide necessary safety & training posters for the CoE.
- 9. Provide necessary welding & cutting consumables and GAS Cylinders for the training during hand holding period.
- 10. Handholding for 12 months from the date of commissioning. Handholding should include the following but not limited to
 - I. The TP shall identify and formulate training programs to develop skills in futuristic/ disruptive technologies and associated skill sets required for industry ready.
 - II. To develop courses, course content, course work, manuals, standard operating procedures and standards, disseminate the same with the overall intent of improving the skill sets of individuals.
 - III. To impart high-end skills (and not generic skills) to Students, unemployed individuals and employed individuals (looking to up skill/ re-skill themselves).
 - IV. To conduct train the trainer and train the trainees' programs.
 - V. To conduct need based/ on-request training programs to cater to specialized requirements of corporate, and to generate revenues through these programs.
 - VI. To carry out assessment, certification of trainees.
- VII. Preparation of Training Modules for Train the Trainers and Trainees. Advanced skill training curriculum with equivalent to NSQF level 4 or 5, in addition as per the demand of the industries should be included.
- VIII. Select appropriate courses; design the course structure, curriculum and pedagogy based on industry demand. Selected bidder shall identify and formulate training programs to develop skills in futuristic/disruptive technologies and associated skill sets required for industry ready.

- IX. The TP shall design courses, curriculum, and pedagogy based on industry demand for placing before the CoE Management Committee constituted by DTE&T chaired by collector. Selected bidder shall comply with the recommendations of CoE Management Committee and the same should be incorporated in the curriculum prior to the course commencement.
- X. Conduct training that meets industry standards by engaging appropriate faculties(qualified & experienced), facilities and technology like virtual classroom. Provide at least two Qualified and Experienced Faculties for each CoE with minimum Graduate or Diploma Engineer and 5 years of industry experience in relevant field.
- XI. Trainers must be IIW/AWS/IWE/NC3 qualified or from any other International Welding Society.
- XII. Providing Hard Copy of Training materials for Training of the Trainers and Trainees.
- XIII. These Center of Excellences will be focused on welding & thermal cutting training catering to the following industries
 - a. Steel Industry
 - b. Thermal Power
 - c. Fabrication & Construction
 - d. Port & Shipyard
 - e. Railways
 - f. Automobile
 - g. Mining
 - h. Port and Shipyard
 - i. Forge & Foundry
 - i. Aeronautical
 - k. Pipe Welding
 - 1. Welding for World Skill Competition
- XIV. The company has to ensure that the assessment is completed as per the standards in a fixed time frame and shall issue joint certificate to the passed out students with the help from Principal of designated institute or any valid certificate from international bodies.
- 11. The company shall furnish the proposal with details of courses, course content, course, work, manuals, pedagogy, standard operating procedures and standards, disseminate the same with the overall intent of improving the skill sets of individuals.
- 12. The company shall assist placement/ employment through their channel partners for all trainees who will complete the courses successfully.
- 13. The company shall provide Non-destructive testing facility through Ultrasonic testing (UT) & Magnetic particle testing (MT) at the CoEs. The company shall supply all required non-destructive weld testing facilities for the work-piece in the Centre of Excellences as proposed in the technical bids.
- 14. Provide necessary welding & cutting consumables during hand-holding period.
- 15. Bidder to visit each centre and they need to project thru 3D view, how they are planning to place all equipment and booths at CoEs.
- 16. Selected Technology Partner shall provide Placement Support to the successfully trained and certified students
- 17. Selected Technology Partner shall be responsible to create a network with nearby industries to generate internal revenue (IRG) by utilizing the equipment/machineries of the CoEs, finishing of welding related jobs as per the requirement of industries, providing the upskill training to the employees from the industries etc.

3.2. Specifications of Civil & Electrical Works:

Design of CoE including interior design with fire retardant, plastic coating painting, design of shop floor/labs with anti-skid, electrical insulating, fire retardant with epoxy flooring (with minimum 3mm thickness), required electrical, civil and plumbing works and furnishing of the labs etc.

3.3. SCOPE OF DTE&T ODISHA

- 1. Provide infrastructure and space for setting up of the Centre of Excellence. DTE&T Odisha will provide the infrastructure as per the design proposed by the Technology Partner and the specifications finalized by DTE&T Odisha to setup the labs.
- 2. Conduct a pre-delivery inspection of sample equipment by its own technical experts or 3rd party agency/consultants/advisors appointed by DTE&T before the proposed equipment delivered by the executing partner at the proposed CoEs. If the executing partner fails to comply with any of the quality, technical specification or clause mentioned in the RFP, and then the Contract will be terminated by DTE&T.
- 3. Provide necessary electrical power supply, water supply etc. required for installation and commissioning.
- 4. Provide necessary work permit.
- 5. Provide assistance for unloading of materials but unloading of equipment is responsibilities of selected bidder.
- 6. Provide necessary electrical connections and input power points as per the machine placing and requirement. Cabling lay out to be planned together with selected bidder. Provide required electrical connections of suitable/required load to nearest distribution box of the machines.
- 7. Provide necessary welding & cutting consumables for the training post hand holding period.
- 8. Provide the requisite hostel facilities for 30 students and use of existing workshop or infrastructure. However, additional infrastructure for storage (as per requirement) should be developed by the selected bidder.
- 9. Create a network of nearby institutes for capacity building and mentoring support. This is under the scope of DTE&T but selected bidder should extend support wherever required.
- 10. CoE can generate revenue through fees deposited by the admitted trainees and provide skilling, upskilling/re-skilling training to the trainees from other private institutes. This is under scope of DTE&T. Trainees shall be admitted as per the eligibility criteria specified by CoE Management Committee.
- 11. CoE may train the semi-skilled technicians of nearby industries on payment, as fixed by CoE Management Committee.
- 12. CoE, may train the passed out trainees for nearby ITIs & Polytechnics as a value addition course, on the fees as fixed by CoE Management Committee.

3.4. JOINT SCOPE OF DTE&T AND TECHNOLOGY PARTNER

- 1. Selection of students for specialized course
- 2. Joint certification of successful trainees
- 3. Placement of the successful certified trainees

4. MANAGEMENT OF COEs

- **I.** The management committee of the CoE will be consisting of representatives from selected bidder company, DTE&T, representatives from two local industries, members from IMC, district employment officer, and district collector.
- **II.** DTE&T shall be sole authority to oversee all the training and administrative activities in the best interest of the State of Odisha.
- III. Company/firm shall support placement of trainees with the help of the particular Industry of each skill
- IV. DTE&T shall provide infrastructure facilities for the CoEs.
- V. CoE Management Committee will be constituted by DTE&T for the overall guidance and the role of the committee will generally be limited to:
 - a) Review the periodic updating of syllabus, curriculum and course content ii). Review adequacy of courses offered viz a viz industry demand and suggest addition/ modification or discontinuation of courses and fixation of fees. Finalization of training module, training plan, course content etc.
 - b) Periodic performance and placement evaluation against pre defined milestones detailed under RFP document to be published.
 - c) Review, and if necessary, engage third party to evaluate the quality of equipment and training.
 - d) It will fix the eligibility criteria for admission/reservations etc. and mobilize students/industry employees from nearby cluster for admission.

5. Terms & Conditions:

Centre of Excellence on Advanced Welding to be set up at ITI Jharsuguda, ITI Anandpur and ITI Kutra (Govt. ITI) of Odisha on Turnkey Basis.

- 1. Bidders need to submit Pre-Qualification Criteria and Mandatory Documents along with Bid Processing Fee &their proposals [Technical Proposal (along with EMD) and Financial Proposal] separately in sealed inner envelopes, and clearly marked on the outside as PRE-QUALIFICATION, TECHNICAL PROPOSAL and FINANCIAL PROPOSAL, as appropriate. These three inner envelops shall then be placed and sealed in one outer envelope clearly marked "RFP to setup Centre of Excellence in Advanced Welding at Govt. ITIs under OMBADC districts"
- 2. Bidders must sign all pages of RFP by their authorized signatory and submit with technical bid.
- **3.** Bidders must bid for all the equipment from list given at "Proposed equipment list for CoEs". Partial bid or selective equipment bids are not allowed.
- **4.** Only world leading OEM of Advanced Welding equipment companies are invited to bid. No consortium biddings are allowed.
- **5.** 60% of the total equipment & machinery cost must have been manufactured by bidder OEM. This excludes tools and tackles, PPE, fire safety equipment and raw materials etc.
- **6.** Price bid should be submitted in the given format in Annexure II. Price bid should have equipment wise breakup.
- 7. Bidders can tie-up with other OEM companies for the equipment/machines not manufactured by them and shall submit bid specific authorization from the tied-up OEMs/Partners. Bidders should not compromise with quality of equipment/machines.
- **8.** Warranty -36 months from the date of commissioning
- **9.** Project completion Timeline and Payment Schedule for each CoEs mentioned in Section 10.
- **10. Performance Security** A performance security in the form of Bank Guarantee for 10% of the Bid Value to be submitted on receipt of the Contract Order (LoA). The Bank Guarantee will be valid for 44months.

Comprehensive Maintenance Services during Warranty Period

The final selected bidder/supplier has to provide Comprehensive Warranty Maintenance Services for all equipment/machines (except consumables, PPE and tools & tackles) at each CoE for 36 months from the date of successful installation & commissioning. The scope of the bidders is as below.

- **1.** Maintenance Services shall consist of Preventive and Corrective maintenance of equipment specified in Section -7 (excluding consumables, PPE and tools & tackles) & will include repair and replacement of parts free of cost.
- 2. Preventive maintenance, monthly once, which includes:

Check-up to ensure that device connection is proper; cabling is at proper condition etc.

Cleaning of the above instruments & equipments and checking the System Performance.

- **3.** The final selected bidder has to conduct preventive maintenance services at least twice (2 times) in a year at each CoE.
- **4.** The parts replaced must be new parts or equivalent in performance to new parts.
- **5.** Any complaint informed through telephone/email must be acknowledged with a Complaint No. by the Supplier which will be noted by Consignee. All further contact with the Supplier on such complaint will be initiated through that Complaint No. Once rectification done, that No. will be cancelled by both parties. A register is to be maintained by the Supplier where complaints are to be noted along with Complaint No.
- **6.** The maintenance shall normally be done at the earliest.
- **7.** The Service Engineer of the Supplier will be allowed to handle the respective plant & machineries only in presence of the officer in charge at the CoE site.
- **8.** The Supplier should ensure that maintenance job is not hampered/ delayed due to paucity of spares/inadequate man power etc.

- **9.** Normal response time for repair is 72 hours from the actual time of reporting of the problem to the Supplier.
- **10**. Minor repair to be done within 7 days of complaint registered and for major breakdown or replacement of parts must be completed by 15 days from the complaint registered to supplier.

6.1 Pre-Qualification/Eligibility Criteria of the Bidders and mandatory documents

SL No.	Basic Requirement	Specific Requirements	Documents required
1	Legal Entity	The Bidder must be a Registered Proprietorship firm/A partnership firm/Private Limited Company in India	Copy of valid registration certificate& certificates of incorporation shall be enclosed as a proof
2	No Consortium	The Bidder should not bid under any Consortium. No Consortium bid shall be allowed for this RFP.	Self-declaration should be submitted
3	Continuation of Business	The Bidder company should have been in existence as a registered company in India for at least 10 years and must have prior experience of minimum 05 years in relevant field.	Incorporation certificate of the firm, registration certificate
4	OEM	The bidder should be original manufacturer (OEM) of advanced welding equipment & machineries. No partner or vendor is allowed to bid.	A Self certified certificate on the letter head
5	Global Presence	The company must have global presence in at least 10 countries	A Self certified certificate on the letter head
6	Sub-Contract	The Bidder cannot outsource or sub-contract the complete or part of it's work or Services. However, Civil, Electrical and Plumbing works can be outsourced but the quality of services and responsibilities will be of selected Bidder only.	A Self certified certificate on the letter head
7	Service Centre	The company and its associates should have its service centres in Eastern India.	Details of service centres to be provided
8	ISO Certificate	The company should have ISO 9001, ISO 14001 & ISO 45001 certification.	Copy of valid certificates
9	Financial: Turnover	Average Annual Turnover (Indian/Global business) of Rs.100 crores for each of the last FY 3 years of 2020-21, 2021-22, & 2022-23	*Audited financial statements/CA certified true copy stating the turnover *Audited Financial statements (Balance sheet, Profit & Loss Account/Income & Expenditure Statement, Cash flow statement, Notes on Account) including Income Tax Return with computation statement for the last three consecutive years (2020-21), (2021-22) & (2022-23)
10	Financial: Net Worth	The net worth of the bidder as per last published audited Balance Sheet i.e. for the year 2022-2023, should be Positive	CA Certificate with CA's Registration Number/ Seal
11	Tax registration and clearance	The bidder should have a registered number of)GST i) Income Tax / Pan number	Copies of relevant certificates of registration

12	Equipment with International Standards	Advanced Welding & Cutting equipment supplied by the bidder must be Industry 4.0	Copies of relevant certificates to be
		compliant and should meet the global standards (CE, ANSI, AS/NZS, DIN EN ISO, JWES etc.).	submitted
13	Past Experience	The company must have executed the job of	
		setting up Centre of Excellence in	
		welding/welding with thermal cutting	
		technology, at least in 5 training	
		centres/industries. Individual supply of	
		equipment will not be considered.	_
		The company must have executed a single	
		similar project of value not less than Rs 1 Crore	
		in a Government/Private Training Institute or	
		engineering college.	
14	Blacklist	No bidder should have been blacklisted by any	Self-declaration in a
		State Government or Central Government	notarized document
		agencies or corporations governed by them.	
15	Mandatory Undertaking	Bidder should: -	A Self certified certificate
		a) not be insolvent, in receivership, bankrupt or	on the letter head
		being wound up, not have its affairs	
		administered by a court or a judicial officer, and	
		must not be the subject of legal proceedings for	
		any of the foregoing reasons;	
		b) not have, and their directors and officers not	
		have, been convicted of any criminal offence	
		related to their professional conduct or the	
		making of false statements or misrepresentations	
		as to their qualifications to enter into a	
		procurement contract within a period of three	
		years preceding the commencement of the	
		procurement process, or not have been	
		otherwise disqualified pursuant to debarment proceedings;	
		c) not have a conflict of interest in the	
		procurement in question as specified in the	
		bidding document.	
		d) comply with the code of integrity as specified	
		in the bidding document.	
16	Minimum Qualification	The company should provide experienced and	
10	of Trainers for Hand-	skilled trainers for technical training. Trainers	
	Holding Training at CoEs	must be IIW/AWS/IWE/NC3 qualified or from	
	Training at COLS	any other International Welding Society with	
		minimum Graduate or Diploma Engineer and 5	
		years of industry experience in relevant field	

6.3 Compliance on Technical & Financial Bids

Technical Bids must contain Technical details with deviation statement, copies of documents as per requirement & Copy of original standard printed catalogue.

Technical detail should contain complete specification of goods/scope of related services/list of deliverables with all technical and commercial terms and conditions. Bidders have to confirm the Technical and Commercial specifications as mentioned in this RFP document. (Ref: Technical Specification/Compliance Statement, Section-7) If there is any deviation(s), the same should be clearly specified in the given column. If there is no deviation, nil deviation should be mentioned per line specification. Standard Printed Catalogue should be submitted invariably. Compliance statement with respect to the technical specification mentioned in the offer and compliance statement should be further specified by indicating the catalogue page no /para number/line no for each specification.

Specifications of the equipment/Bill of quantity should be listed in the bid documents as per the RFP format and copy of Printed catalogues should be attached. Original printed catalogue of the tendered item to be couriered before opening date. The Model of the items and its Catalogue should be spelt out clearly. Offers without standard printed catalogue shall not be considered for evaluation. Specification as mentioned in the standard printed catalogue shall be considered for technical evaluation/comparison. The detailed specification of the product should also be available in the official website of the bidder/OEM so as to cross check the product while evaluating the technical bid. If there is inconsistency in specification provided in catalogue and website, decision of the evaluation committee shall be final. If offer is submitted for different model DTE&T Odisha reserves the right to accept the make/model more suitable for the purpose.

DTE&T may inspect the equipment as per the RFP document at the bidder's/ customer's premises where the bidder has supplied the particular tendered item before final evaluation. Bidder has to arrange for all in-house facility for the inspection. Inspection report of the visiting committee shall be final for evaluation of the bid.

Wherever there is significant inconsistency, specifically stipulation in the Technical Specifications as a part of bidding document and not complied by the bidder, in such cases, no clarifications shall generally be called [e.g. any response meeting the Technical Specifications should be supported by documents like catalogue, test charts etc. as specified in the bidding document. The bidders shall be considered non-responsive for non-submission of catalogue/test chart. However, DTE&T reserves the right to ask for clarification in case of genuine doubt and bid containing contradictory information, which is in general be for minor, non-material issues.

NOTE:

- 1. The parameters which are not available in the catalogue, the value should be mentioned in the column with supporting documents.
- The bidder may suggest better specifications and features for the list of equipment/machines mentioned in the Section 7 with proper justifications. Bidder may add pages as per their requirement to prepare the compliance statement/justifications.

7. Technical Specification/Compliance Statement of Welding Machine & Equipment for each CoE in Advanced Welding

(Itel Telluci Clause 1 to old)	(Ref	Tender	Clause	No	6.3)
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(To be submitted on bidder's Letter -head as part of Technical Bid)

Bidder's Name:

Address & Contact Detail:

Bidder's Reference No:...... Date:.....

Equipment list for each CoE in Advanced Welding			
SL. NO.	ITEM DESCRIPTION	QTY	Make & Model
1	Advanced Multi-Purpose MMAW/GMAW Machine	2 Nos	
2	Advanced Synergic Pulse/Double Pulsed GMAW machine	1 No	
3	Advanced GMAW Machine for root welding	1 No	
4	Heavy Duty AC/DC TIG Welding Machine	1 No	
5	Advanced Synergic Pulse/Double Pulsed AC/DC TIG Welding Machine	1 No	
6	DC TIG Welding Machine	1 No	
7	Advanced Portable GMAW Machine with builtin wire feeder	2 Nos	
8	GMAW Machine for Thin Sheet Welding	1 No	
9	Shielded Metal Arc Welding Machine	2 Nos	
10	Shielded Metal Arc Welding Machine with Gauging Facility	2 Nos	
11	Advanced GMAW Machine for Pipe Welding	1 No	
12	Advanced Welding by Robotics	1 No	
13	Universal Welding Management Software for IOT	In all machines with IOT Features	
14	Welding Simulator	1 No	
15	Manual Air Plasma Cutting Machine	1 No	
16	Handheld Laser Welding Machine	1 No	
17	Air Compressor	1 No	
18	Welding Booths	18 Nos	
19	OXY Fuel Cutting Torch	1 No	
20	OXY Fuel Brazing Torch	1 No	
21	Stainless Steel Powder Hand Cutting Torch	1 No	
22	Ring Type Heating Torch	1 No	
23	Heavy Duty OXY Fuel Cutting Torch	1 No	
24	Downdraft Tables	14 Nos	
25	Robotics Welding Booth & Table	1 No	
26	Work Benches with Vice	2 Nos	
27	Welding PPE	20 Sets	
28	Tools & Tackles	1 Set	
29	Furniture & Teaching Aids	1 Set	
30	Magnetic Particle Inspection Testing Equipment	1 SET	
31	Ultrasonic Testing Equipment	1 SET	
32	Die Penetrant Testing Equipment	1 SET	
33	Machine Consumables	1 SET	
34	Wire and Electrodes	1 SET	
35	GAS Cylinders (CO2, Argon -CO2 Mixture Gas, Argon Gas, Oxygen Gas, DA Gas etc.)	minimum 2 cylinders of each	
	, , , , , , , , , , , , , , , , , , , ,		

8. Minimum Specifications of equipment:

Technical Specifications of the listed equipment given above at Section-7 (Advanced Welding Equipment)

1. Advanced Multi-Purpose MMAW/GMW machine

	TECHNICAL SPECIFICATION		Bidder's Response
1.00	TECHNICAL SPECIFICATION		
1.01	Type	Digital Microprocessor controlled software	
		based IGBT invertertype power source.	
1.02		Argon or CO2 or Argon/CO2 gas mixture	
1.03	MIG Welding Current	Minimum 20A & Maximum 400A	
	MMA Welding Current	15 A/20 V - 400 A/58V or better current range	
1.05		400 A(minimum)rating at 40% -60% duty cycle (10minutes) at 40 °C	
1.06		11 - 14 Kva	
1.07		70 - 90 V DC	
	Wire Feed Speed	0.5-1.0 to 25-30 m/min	
1.09	Idle power without cooler and wire feeder (MIG)	45 - 52 W	
1.10	Type of Cooling	Forced air cooled	
	Degree of Protection	IP23S/IP23 or better	
1.12	Input Supply Variation	380 - 460 V ±10 % 3~,50/60HZ	
	Power Factor at max. current	0.80 Minimum	
1.14	Efficiency at max. current	Minimum 85 %	
1.15	Recommended generator power(min)	25 kVA	
1.16	Output display	Digital	
1.17	Wireless communication type for remote	2.4 GHz WiFi & Bluetooth	
	Wired communication type	Ethernet & USB	
1.19	Standards	IEC 60974-1, -10	
1.20	OEM	Provide OEM documents	
1.21	IOT Based Features	This is mandatory	
2.00	Working Condition:		
2.01	Continuous heavy duty welding	g in dusty fabrication shop	
		,	
3.00	TECHNICAL FEATURES		
3.01		olley mounted, sturdy, dust proof and ergonomic	
3.02	The power source should have	excellent tolerance of supply voltage	
2.02	fluctuations and should be suita	C	
3.03	characteristics		
3.04	4.0		
3.05		elding programs for delivering better arc	
		like carbon steels, alloy steels, stainless steels,	
	Aluminium etc. and for thin to heavythickness joints.		
3.06	There should be provision for selecting the welding power by wire feed speed or current or thickness of the material in synergic MIG/MAG welding		
3.07	•	knob synergic control through in-built	
		Base Material, filler wire metal, wire diameter	
		should be selectable by the welder. When Wire	
		d other parameters shouldbe automatically	
	should be set by the synergic co		
	Ishould be set by the synergic et	onition system	

3.08	The machine shall have synergic pulse welding capability with in-built	
2.00	MIG/MAG weldingprograms. Base Material, filler wire material, wire diameter	1
	and shielding gas composition should be selectable by the welder. When Wire	
	feed speed or current is selected other pulseparameters should be automatically	
	set by the synergic control system	
3.09	Machine should support MIG brazing providing the best arc characteristics	
	Machine should support MMA welding of all type of electrodes.	
3.11	Machine should have facility to up load software to deliver higher performance	
3.11	for MS and stainless steel thin (1mm minimum) to medium sheet positional	
		1
	welding with reduced heat input. Such software should be supplied with machine	
2 12	Machine should have facility to up load software to deliver higher performance	
3.12	root welding, without using backing strip or back gauging, on MS and stainless	
	otacliche. Such software should be supplied with machine	
2 12	steel jobs. Such software should be supplied with machine	
3.13	Machine should have facility to upload software to deliver higher performance	
	steel welding to control and minimize spatter level in the globular metal	
2 14	transfer current range. Such software should be supplied with machine Machine should be supported by software for advanced control to deliver the	
3.14	set current even the stick out length varies up to 30mm. Such software should	
	be supplied with machine	
3 15	The control panel should be capable of displaying Welding Procedure	
3.13	Specification in digital format with the usage of welding management software	
3 16	Warning and operational LED indications for over temperature.	
	Auto-Cut off device in-built in the power source in case of overheating.	
3.18	Delayed display of set parameter values to check the actual welding parameters	
2.10	after welding.	
	Function to check the parameters of the last 10 welds at any point of time.	
3.20	Error code display for maintenance purpose (Error diagnostic function) and	
2.01	easy rectification of issue.	
3.21	The machine should store and display the error occurred previously and its	
2 22	point of time	
	The machine should have minimum 100 memory channel to save welding jobs.	
3.23	Dynamics control for varying the rate of change of the short circuit current for	
2.04	fine tuning of the arc characteristics	
	Crater fill function for avoiding crater defects	
	Hot start / soft start functionality for controlling starting current	
	Ignition of the arc should be spatter fee by touch sensing.	
3.27	The Power source should be capable to upgrade at high power level of 500A	
	by software upgradation.	
	ONAL FEATURES	
3.28	The machine should be able to operate in two knob control for MIG/MAG	
	welding where current andvoltage can be adjusts separately.	
3.29	Machine should support weld cladding with effective control over dilution.	
3.30	Machine should support special feature for advanced fusion control by	
	changing the fusion percentage. Such software should be supplied with the	
	machine.	
3.31	Slow wire feeding before arc ignition for easy arc stabilization.	
3.32	It should have function to switch the output current level during welding	
	without extinguishing the arc.	
3.33	Pre-gas and post-gas Control for better weld bead protection.	
3.34	The machine should have Voltage Reduction Device for safety during MMA	
	welding and LED provisioned in the power source for operational indication.	
3.35	Machine should be connectable to android based mobile application for	
	software updates, License update, welding program update and backups	
3.36	The power source should be able to connect two wire feeders simultaneously.	
4.00	Wire Feed Unit:- (Minimum 1 unit and as per the standard length.)	
4.01	Light weight, compact and ergonomic wire feeder with twin motor four roller	
	drive. Suitable for continuous smooth wire feeding with wire dia 0.8 mm,	
	1.2mm, 1.6 mm Solid/Flux Cored Wire. The rollers should be easily attachable	
	& removable from the wire feeder without any special tools.	
4.02	Wire Retraction Mechanism for pulling of the filler wire back.	
4.03	Digital display of major weld parameters like current, voltage, wire speed,	

1	channel number and other settings		
4.04		OP loading or Side loading of Spool	
		with Extended Push pull wire feeder	
	TONAL FEATURES	First Control	
4.06		with standard wire spools (Maximum	
	300mm spool) properly covered of	r housed inside the wire feed unit with see	
	through glass to prevent direct cor		
=	Bidder to mention diameter of S		
4.07			
4.08			
4.09			
4.10		to standards IEC 60974-5, 10	
5.00	\ I \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2.7 01 11 2 11 11	
5.01		h 3.5 m flexible & light to handle cable.	
5.02		100% Duty cycle at 420 A	
	TONAL FEATURES		
5.03		on-off switch and remote control on torch to	
5.04	adjust parameters and also to chan LED lighting available for poorly		
3.04	LED lighting available for poorty	in conditions	
6.00	Extended Duch null wine for day	Remote Feeding system (OPTIONAL)	
		where approach of std wire feeder is difficult	
6.01		ust be supplied with distance wire feeder	
	system without shifting the main v	vire feeder from the power source through an	
	extension cable assembly, however	r, it should be possible to use a std	
		ternational Std with EURO Connection	
	having length 3 /3.5mts.		
6.02		e at least 10 mts. The motion of feeler wire	
		e synchronized for smooth feeding through	
		There should be control adjustments for	
	extended remote feeding system.	age at the torch connection end within the	
6.03		have the same ratings, wire sizes, class of	
		feeder. However, 2 roll drive or 4 roll filler	
	wire drive mechanism shall be acc	eptable.	
	WIRELESS CONTROL PAD (,	
7.01			
	Operating voltage	12V	
	Operating voltage Operating temperature range	12V -20+40 °C	
7.02			
7.02 7.03	Operating temperature range	-20+40 °C	
7.02 7.03 7.04	Operating temperature range Degree of protection Typical battery operation time	-20+40 °C IP54 15 - 24 h	
7.02 7.03 7.04 7.05	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion	
7.02 7.03 7.04 7.05	Operating temperature range Degree of protection Typical battery operation time	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power	
7.02 7.03 7.04 7.05	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be	
7.02 7.03 7.04 7.05 7.06	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available.	
7.02 7.03 7.04 7.05	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz	
7.02 7.03 7.04 7.05 7.06	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth	
7.02 7.03 7.04 7.05 7.06 7.07	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers:-	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers:- 2400-2483.5 MHz 14 dBm	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers:- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBµA/m	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers :- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range -	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers :- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers:- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts communication type Wired -USB	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11 7.12 7.13	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers:- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts communication type Wired -USB Display Type - TFT Led	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11 7.12 7.13 7.14	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers :- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts communication type Wired -USB Display Type - TFT Led Display Size - 5.7'	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11 7.12 7.13	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers :- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts communication type Wired -USB Display Type - TFT Led Display Size - 5.7' Standards :-IEC 60950-1, EN 62368-1EN	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11 7.12 7.13 7.14	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers:- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts communication type Wired -USB Display Type - TFT Led Display Size - 5.7' Standards:-IEC 60950-1, EN 62368-1EN 300 328 v2.1.1, EN 300 330 v2.1.1	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11 7.12 7.13 7.14	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers :- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts communication type Wired -USB Display Type - TFT Led Display Size - 5.7' Standards :-IEC 60950-1, EN 62368-1EN	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11 7.12 7.13 7.14	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers:- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts communication type Wired -USB Display Type - TFT Led Display Size - 5.7' Standards:-IEC 60950-1, EN 62368-1EN 300 328 v2.1.1, EN 300 330 v2.1.1	
7.02 7.03 7.04 7.05 7.06 7.07 7.08 7.09 7.10 7.11 7.12 7.13 7.14	Operating temperature range Degree of protection Typical battery operation time Battery type	-20+40 °C IP54 15 - 24 h Li – ion Combo cable port for Data and Power transfer, NFC &Bar Code reader must be available. Wireless communication type - 2.4 GHz Bluetooth Transmitter frequencies and powers :- 2400-2483.5 MHz 14 dBm 13.56 MHz -1.3 dBμA/m Typical wireless communication range - max15 Mts communication type Wired -USB Display Type - TFT Led Display Size - 5.7' Standards :-IEC 60950-1, EN 62368-1EN 300 328 v2.1.1, EN 300 330 v2.1.1 EN 301 489-1v2.1.1	

8.00	Technical Data Welding Torch		
8.01	MIG Torch Duty Cycle	40% - 60% @ 400 Amps	
8.02	Connection	EURO/OEM	
8.03	Cooling	Air	

Scope of Supply

- 1. Welding Power Source
- 2. Wire Feeder Unit
- 3. Interconnecting Cable
- 4. Earthing Cable with Clamp
- 5. GMAW torch
- 6. Arc Welding Holder 400 Amps with cable
- 7. Trolley
- 8. Contact Tip 1.2 mm 50 Nos.
- 9. Contact Tip 0.8 mm 50 Nos.
- 10. Tip Holder 50 Nos.
- 11. Gas Nozzle 10 Nos.
- 12. Liner 1.2 mm 2 Nos.
- 13. Liner 0.8 mm 2 Nos.

2. Advanced Synergic pulse/double Pulsed GMAW machine

SL	Feature Description	Value	Bidder's Response
No	1. Welding Power Source pa	ckage	
1.01	Technology:	Welding Power Source to be of Advanced Pulsed Multi-process	
1.02	Design:	Digital, Microprocessor based, IGBT Control Inverter Type, Synergic Pulse and double pulse unit.	
1.03	Input Supply & Power:	340 - 480V / 3ph / 50 /60 Hz.	
1.04	Output Current Range:	15 - 400 A when used with software driven programe.	
1.05		Duty Cycle @40% - 60% : 400A or better	
1.06		Duty Cycle @100% : 300A- 350A or better	
1.07	Idle Power:	100W Max	
1.08	Process Capability:	Synergic/ Non-synergic, Pulsing/ Non- Pulsing capability/ GMAW/ FCAW/ SMAW/ Double Pulse for Aluminum Migwelding./ MIG Brazing for minimum 0.8 mm thick MS sheet	
1.09	IGBT frequency:	Min 20Khz	
1.10	Type of Cooling:	Air Cooled	
1.11	Built-in Program for different type of materials:	Separate Program for different Materials and wire size to be available in the programlist with Gas Combination. Separate Program Upload facility must be available.	
1.12	Number of built-in programs:	Min 100 Program option must be available in machine	
1.13	Provision to make and store new programs:	Must be available in machine	
1.14	Low amplitude high frequency pulsing	Machine should be enabled with low amplitude high frequency pulsing for high	

		speed welding in pulse mode.	
1.15	Special program for thin	Machine should have the facility to up load	
1.15	sheet welding	software to deliver higher performance for	
	S	MS and stainless steel thin (1mm	
		minimum) .Such software should be	
		supplied with the machine.	
1.16		olley mounted and should have facility to	
		way of provinding pivot mounted plate,	
OPT	wher the cylinder will be place IONAL FEATURES	ed 	
1.17	Input Power @ Max Current	Not more than 22.2 Kva	
1.17	Special program for vertical	Machine should be enabled with special	
1.10	welding	software for vertcal welding through the	
	wersamp.	mixed nature of pulse for various types of	
		materials.	
The 1	machine should have the follow	8	
1.19	a) Protection to over	Must be available in machine	
	temperature, overcurrent,		
	under voltage and power		
	phase absence and Motor Over Current		
2. W	ire Feeder		
2.01	Feed Mechanism:	Fully enclosed wire feeder with top/side	
2.01	r coa ivicenamism.	loading mechanism of wire roll	
2.02	Accurate wire feed speed	Must be available	
	control		
2.03	High resolution tachometer	Must be available	
	for accurate wire feed speed		
2.04	control	0.5-25 m/min	
2.04	Wire feed range: Wire filler diameter:		
2.05		Solid- 0.8mm-1.6mm	
2.06	Cored:	0.8mm- 2.0mm	
	IONAL FEATURES		
2.07	Wire Guide:	Split Guides for ease of assembling without tools for better feeding.	
2.08	Wire feed motor	Dynamic feeding of wire for various	
2.00	whe leed motor	positions of welding	
<mark>2.09</mark>	LED lighting for better visibili	i e	
Displa	ay must be compatible with fol	lowing selection	
2.10	Selection of material you are a	bout to weld Fe / SS /AL	
2.11	Selection of Welded material thickness from 0.5mm to 10 mm.		
2.12			
	Fillet Joint etc		
2.13	3 DISPLAY Shall be Compatible with selection of Joint Position:- PA		
	/PB/PC/PD/PE/PF/PG		
2.14	Wire Spool Dia& Weight	(max) 300 mm with 15 Kg or more	
	(Optional Feature)	Bidder need to mention diameter of	
		Spool	
		e following features- Compulsory features	
	Waltaga Amna & WEC	Must be available	
2.15	Voltage, Amps & WFS digital display 2-Step/ 4-Step procedure,	Must be available	

2.17	Memory Limit setting for:- • Welding Current • Wire Feed Speed, WFS • Welding Voltage, Wire feed speed unit selection-meter/min and inch/ min.	Must be available	
2.18	Degree of Protection:	IP23S/IP23 or better	
2.19	Digital Communication	Must be available	
2.20	High resolution tachometer for accurate wire feed speed control	Must be available	
OPT	IONAL FEATURES		
2.21	Wire INCH and Gas Test Switch	Must be available	
2.22	Drive roll change:	Tool less quick change over with split guide	
2.23	Wire drive pressure setting:	To select different wire drive pressure for different welding wires	
Exte	nded Push pull wire feeder as	per below details (OPTIONAL	
	TURES)		
2.24	difficult or impossible the weld wire feeder system without shi source through an extension ca to use a std traditional mig well Connection having length 3 /3 The Length of extension should	d be at least 10 mts. The motion of feeler wire	
2.26	through bend and loops of exte adjustments for welding currer connection end within the exte	d be synchronized for smooth feeding ension cable There should be control at and welding Voltage at the torch ended remote feeding system. ould have the same ratings, wire sizes, class	
	of insulation and speed range of wire feeder. However 2 roll drive or 4 roll filler wire drive mechanism shall be acceptable		
2.27	The Extended Push pull wire f welding parameters within itse	eeder should have facility to adjust various	
3	IOT Based Features (Mandatory)	Should be built in with the machine	
4	MIG Torch Specification:-		
4.01	MIG Torch Duty Cycle :- 60% @ 400 A	Must be Applicable	
4.02	MIG TORCH Euro Connector	Must be Applicable	
4.03	AIR Cooling	Must be Applicable	
4.04	OEM	Provide OEM documents	

3. Advanced GMAW Machine for root welding

SL	Feature Description	Value	Bidder's Response
No	1. Welding Power Source p	ackage	
1.0	Technology:	Welding Power Source to be of Advanced	
1		Pulsed Multi-process	
1.0	Design:	Digital, Microprocessor based, IGBT Control	
2		Inverter Type, Synergic Pulse and double pulse	
		unit.	
1.0	Input Supply & Power:	340 - 480V / 3ph / 50 /60 Hz.	
1.0	Output Current Range :	15 - 400 A when used with software driven	
4	Output Current Range.	programme.	
1.0		Duty Cycle @40% - 60% : 400A or	
5		better	
1.0		Duty Cycle @100% : 300A - 350A or	
6		better	
1.0	Idle Power:	100W Max	
7			
1.0	Process Capability:	Synergic/ Non-synergic, Pulsing/ Non-Pulsing	
8		capability/ GMAW/ FCAW/ SMAW/ Double	
		Pulse for Aluminum Migwelding./ MIG	
		Brazing for minimum 0.8 mm thick MS sheet	
1.0	IGBT frequency:	Min 20Khz	
9 1.1	Type of Cooling:	Air Cooled	
0	Type of Cooling:	All Cooled	
1.1	Built-in Program for	Separate Program for different Materials and	
1	different type of materials:	wire size to be available in the programlist with	
		Gas Combination. Separate Program Upload	
		facility must be available.	
1.1	Number of built-in	Min 100 Program option must be available in	
2	programs:	machine	
1.1	Provision to make and	Must be available in machine	
3	store new programs :	trallers mounted, and should have facility to easy	
1.1		trolley mounted and should have facility to easy ay of providing pivot mounted plate, where the	
4	cylinder will be placed	ay or providing prvot mounted plate, where the	
1.1	Special program for thin	Machine should have the facility to up load	
5	sheet welding	software to deliver higher performance for MS	
		and stainless steel thin (1mm minimum) .Such	
		software should be supplied with the machine.	
	IONAL FEATURES	N	
1.1 6	Input Power @ Max Current	Not more than 22.2 Kva	
	Low amplitude high	Machine should be enabled with low amplitude	
1.1 7	frequency pulsing	high frequicy pulsing (upto 700 Hz) for high	
'	requercy pulsing	speed welding in pulse mode.	
1.1	Special program for	Machine should be enabled with special	
8	vertical welding	software for vertcal welding through the mixed	
		nature of pulse for various types of materials.	
		The second secon	

1.2	Special program for root welding		her performance root backing strip or back stainless steel jobs. Such	
	The machine should have t	the following features		
1.2	a) Protection to over temperature, over current, under voltage and power phase absence and Motor Over Current	Must be available in m	achine	
2.	2. Wire Feeder			
2.0	Feed Mechanism:	Fully enclosed wire fed loading mechanism of	wire roll	
2.0	Wire feed motor	of welding	ire for various positions	
2.0	Wire feed range:	0.5-25 m/min		
2.0	Wire filler diameter:	Solid- 0.8mm-1.6mm		
2.0	Cored:	0.8mm- 2.0mm		
OPT	IONAL FEATURES			
2.0 6	Wire Guide:	Split Guides for ease of tools for better feeding		
2.0 7	High resolution tachometer for accurate wire feed speed control	Must be available		
2.0 8	LED lighting for better visib	ility inside feeder		
	Display must be compatible			
2.0 9	Selection of material you ar			
2.1	Selection of Welded materia			
2.1	Selection of Joint Type:- Bu Fillet Joint etc			
2.1	DISPLAY Shall be Compat /PB/PC/PD/PE/PF/PG	ible with selection of Joi	nt Position:- PA	
2.1	Wire Spool Dia& Weight (Optional Feature)			
The	wire feeder shall have the fol	lowing features- Comp	ulsory features	
2.1	Voltage, Amps & WFS digit	al display	Must be available	
2.1	2-Step/ 4-Step procedure,		Must be available	
2.1	Memory Limit setting for:- • Welding Current • Wire Feed Speed, WFS • Welding Voltage, Wire feed speed unit selection-meter/min and inch/ min.		Must be available	
2.1	Degree of Protection :		IP23S/IP23 or better	
2.1	Digital Communication		Must be available	

OPT	OPTIONAL FEATURES				
<mark>2.1</mark>	Wire INCH and Gas Test Sw	itch	Must be available		
9					
2.2	Drive roll change:		Tool less quick change		
0	William daily and a second second		over with split guide		
2.2 1	Wire drive pressure setting:		To select different wire drive pressure for		
ı.			different welding		
			wires		
2.2	High resolution tachometer f	or accurate wire feed	Must be available		
2.2 2	speed control				
	Extended Push pull wire fe	eder as per below detai	ls (OPTIONAL		
	FEATURES)				
2.2 3	In view of reach to remote ar				
3	or impossible the welding pla				
	system without shifting the n				
	an extension cable assembly,				
	traditional mig welding torch having length 3 /3.5mts.	of international Std with	n EURO Connection		
2.2	The Length of extension show	uld be at least 10 mts. Th	na motion of feeler wire		
4 4	through the entire length sho				
•	bend and loops of extension				
	welding current and welding				
	extended remote feeding syst				
2.2	The remote feeding System s		ings, wire sizes, class of		
2.2 5	insulation and speed range of	wire feeder. However 2	roll drive or 4 roll filler		
	wire drive mechanism shall b				
<mark>2.2</mark>	The Extended Push pull wire		lity to adjust various		
<mark>6</mark>	welding parameters within itself				
2.2	IOT Based Features	Should be built in with	the machine		
7					
3	MIG Torch Specification:-				
3.0	MIG Torch Duty Cycle :-	Must be Applicable			
1	60% @ 400 A				
3.0	MIG TORCH Euro	Must be Applicable			
2	Connector				
3.0	AIR Cooling	Must be Applicable			
3	OF A	D 11 0577.1			
3.0	OEM	Provide OEM docume	nts		
4					

4. Heavy Duty AC/DC TIG Welding Machine

SL	Power Source:		Inverter Digital Technology GTAW	Bidder's Response
No			ACDC Welder	-
	Feature	Description	Value	
1	Mains connection voltage	3~ 50/60 Hz	380460 V ±10 %	
2	Open circuit voltage (average)	MMA	55 - 90 V	
3	Rated maximum output at 40 °C	40 % TIG	350A - 500 A / 30 V or better	
4	(Duty cycle and	60 % TIG	300A - 400 A / 26.2 V or better	

5	process specified in	100 % TIG	250A - 300 A / 22	2 V or better	
	the next column)			<u> </u>	
6	Range of output	TIG	3 A / 1 V 500 A		
7		MMA		0 A / 42 V or Better	
8	Power factor, λ	At max current	0.9 or better		
9	Efficiency, η	At max current	min 86%		
10	Idle power	TIG	20 W		
11	Degree of protection		IP23S/IP23 or bet	ter	
12	Voltage supply for cooling unit	Ucu	380460 V		
13	Recommended generator power (min)	Sgen	35 kVA		
14	Wireless type remote communication	for	Transmitter frequency and power	2.4GHz Bluetooth,2400- 2500 MHz, 10 dBm	
15	Wired communication	Remote	Analog		
16	type	CAN BUS	Remote-Bus or ec	nuivalent	
17	Stick electrode diameters	ø mm	1.64.0 mm	1	
18	Standards		IEC60974-1,-3,-1	0	
19			IEC 61000-3-12	~	
20			AS 60974.1-2006	(3	
21			GB 15579.1	•	
22	Functions TIG:	TIG HF Start, TI	G LIFT Start & TI	G Spot should be	
23	Pre Flow :-	0 to 10 Sec			
24	Start Current	5 - 300% or bette	er .		
2-7	Adjustment	3 30070 01 00110	- 300% of better		
25	Up Slope	adjustable 0-5 Se	ecs (Steps of 0.1sec));	
26	Down Slope	0.1 - 15 sec or be	etter		
27	Post Flow	0 to 30 sec			
28	Hot Start level	- 80% to + 100%	or better		
29	Hot Start time	0.1 sec to 9.9 sec			
30	TIG Pulse Frequency		0.2 hz to 300 Hz or better		
31	Double Pulse Feature	Must Be available			
32	2/4 stroke		Must Be available		
33	Memories	99 memory.			
34	OEM	Provide OEM do	cuments		
35	IoT Based Features		n with the machine		
36	Parameter	Value			
37	Current mode	DC-/ DC+ /AC/]	MIX		
38	AC Waveform		ptima / Square		
39	AC Frequency	30 Hz 250 Hz			
OPT	IONAL FEATURES				
<mark>40</mark>	Operating temperature range	-20+40 °C			
<mark>41</mark>	Storage temperature range	-20+60 °C			
42	AC+ / AC- balance	$\frac{\text{Min/Max} = -60 \%}{\text{Min/Max}}$	% 0 %		
43	MIX TIG AC (time)		90%, step 1 %		
<mark>44</mark>	MIX TIG cycle time	Min/Max = 0.1 s	1.0 s, step 0.1 s		

	MMA settings:			
45	Hot start	-10 +10, step 1 (Default = 0)		
46	Arc force	$-10 \dots +10$, step 1 (Default = 0)		
47	MMA antifreeze	OFF / ON (Default = OFF)		
48	VRD (Voltage	OFF / ON (Default = OFF)		
	Reduction Device)			
	mode			
	Technical Features: -			
	1. Power Source: -			
49	It shall have error code	display for maintenance purpose (Error diagnostic		
	function).			
50		power source in case of over current. Over heat, under		
		protections, phase failure indicator shall be provisioned.		
		m on the above failure should be provide.		
51		pport both TIG and MMA welding with AC/DC output		
		of AC balancing and frequency control.		
52		rol in AC welding, Sine, square and optima wave form,		
	must be provisioned.			
53		having double pulse feature which allows pulse welding		
		better travel speed and lower heat input in dc tig mode.		
54	The machine should have capability to change the welding current during welding			
	without extinguishing of			
55		integrated with water Cooling unit, which should function		
	in synergy with the pov	ver source.		
	CIONAL FEATURES			
<mark>56</mark>		evention of frequent failure of power device (IGBT) shall		
	be provided.			
<u>57</u>		variable stepless current control for the entire range of		
	output current.			
<mark>58</mark>		micro tacking function controlling the tacking timing in		
	the range of millisecone			
<mark>59</mark>		ve function to set the search arc and tail arc while		
	performing.			
		with following selection (Compulsory)		
60		u are about to weld Fe / SS /AL		
61		aterial thickness from 0.5mm to 10 mm.		
62		- Butt Joint / Corner Joint / edge Joint / Lap		
- 62		e Joint / Tube +Plate Joint		
63		mpatible with selection of Joint Position:- PA		
<i>c</i> 4	/PB/PC/PD/PE/PF/PG	11 1 21 1 12		
64	101 function - Must be	enabled with the machine		

Cool	ing Unit minimum specifications		
	Feature	Value	Bidder's Response
65	Connection voltage	220460 V AC, 1~/3~	
66	Maximum rated supply current	1.0 A	
67	Rated cooling power at 1 l/min	0.9 kW	
68	Cooling power at 1.6 l/min	1.0 kW	
69	Degree of protection **	IP23S/IP23 or better	
OPT	IONAL FEATURES		
<mark>70</mark>	Coolant pressure (max)	0.4 MPa	
<mark>71</mark>	Tank volume	3.01	
<mark>72</mark>	Operating temperature range *	-20 +40 °C	
<mark>73</mark>	Storage temperature range	-20 +60 °C	
<mark>74</mark>	EMC class	A	

<mark>75</mark>	Standards	IEC 60974-2	
<mark>76</mark>		IEC 60974-10	

Scope of Supply

- 1. Welding Power Source
- 2. Earthing Cable with Clamp
- 3. GTAW torch
- 4. Water cooling unit (integrated)
- 5. Arc Welding Holder 400 Amps with cable
- 6. Trolley
- 7. Tungsten Electrode 50 Nos.
- 8. Collet 50 Nos.
- 9. Ceramic Cap 50 Nos.

5. Advanced Synergic pulse/double Pulsed AC/DC TIG Welding machine

SL No	Power Source:		Inverter Digital Technology GTAW ACDC Welder	
	Feature	Description		Bidder's Response
1	Mains connection	3~ 50/60	380460 V ±10 %	•
	voltage	Hz		
2	Maximum supply		1612 A	
	current			
3	Fuse/MCB – B		16 A or less	
	Type			
4	Open circuit	MMA	45 - 60 V	
	voltage (average)			
5	Rated maximum	40 % TIG	300 A / 22 V or better	
	output at 40 °C			
6	(Duty cycle and	60 % TIG	230 A / 19.2 V or better	
7	process specified in	100 % TIG	190 A / 17.6 V or better	
8	the next column)	40 % MMA	250 A / 30 V or better	
9		60 % MMA	230 A / 29.2 V or better	
10		100 %	190 A / 27.6 V or better	
		MMA		
11	Range of output	TIG	3 A / 1 V 300 A / 38 V or Better	
12		MMA	10 A / 10 V 250 A / 39 V or	
			Better	
13	Power factor, λ	400 V,	0.9 or better	
		MMA 250		
		A / 30 V		
14	Efficiency, η	400 V,	min 86%	
		MMA 190		
		A / 27.6 V		
15	Idle power	TIG	20 W	
16	Degree of		IP23S/IP23 or better	
	protection			
17	Recommended	Sgen	20 kVA	
	generator power			
	(min)			
18	Wireless remote	Transmitter	2.4 GHz Bluetooth, 2400-2483.5	
	communication	frequency	MHz, 10 dBm	

	type power			
19	type power Wired communication type	Remote	Analog	
20	whea communication type	CAN BUS	Remote-Bus or	
20		CAN DOS	equivalent	
21	Stick electrode diameters	ø mm	1.64.0 mm	
22	Standards	<i>y</i> IIIII	IEC60974-1,-3,-10	
23	Standards		IEC 61000-3-12	
24			AS 60974.1-2006 (3)	
24			(OPTIONAL)	
25	1		GB 15579.1	
23			(OPTIONAL)	
26	Functions TIG:	TIG HF Start, TIG	(011101(112)	
		LIFT Start & TIG		
		Spot should be		
		available		
27	Pre Flow :-	0 to 10 Sec		
28	Start Current Adjustment	5 - 300% or better		
29	Post Flow	0 to 30 sec		
30	Hot Start time	0.1 sec to 9.9 sec		
31	TIG Pulse Frequency	0.2 hz to 300 Hz or		
		better		
32	Double Pulse Feature	Must Be available		
33	2/4 stroke	Must Be available		
34	Memories	99 memory.		
35	OEM	Provide OEM docu	ments	
36	IoT Based Features	This is mandatory		
	Parameter	Value		
37	Current mode	DC-/ DC+ /AC/		
		MIX		
38	AC Waveform	Sine /		
		Optima /		
		Square		
39	AC Frequency	30 Hz 250 Hz or		
		better		
	TIONAL FEATURES	1	1	
40	Operating temperature range		-20+40 °C	
41	Storage temperature range		-20+60 °C	
42	EMC class		A	
43	Voltage supply for cooling unit	Ucu	380460 V	
<mark>44</mark>	Up Slope	adjustable 0-5 Secs		
4 ~	D. GI	(Steps of 0.1sec);		
<mark>45</mark>	Down Slope	0.1 - 15 sec or		
10	Hat Start land	better 1000/		
<mark>46</mark>	Hot Start level	- 80% to + 100%		
47	AC+ / AC halows	or better		
<mark>47</mark>	AC+ / AC- balance	Min/Max = -60 % 0 %		
48	MIX TIG AC (time) ratio	$\frac{\% 0 \%}{Min/Max = 10 \%}$		
40	IVITA TTO AC (tille) ratio	$\frac{Min/Max}{90} = 10 \%$		
		%,step 1 %		
<mark>49</mark>	MIX TIG cycle time	$\frac{\%,\text{step 1 \%}}{\text{Min/Max} = 0.1 \text{ s}}$		
47	IVIIX TIO Cycle tille	1.0 s, step 0.1 s		
	MMA settings:	1.0 s, step 0.1 s		
50	Hot start	-10 +10, step		
30	110t Start	1(Default = 0)		
	1	T(Detault – 0)	<u> </u>	

Are force 10+10, step		T	10		
Section Sect	51	Arc force	-10 +10, step		
Device) mode Default= OFF					
Technical Features: - 1. Power Source: - 1. P	52				
Technical Features: - 1. Power Source: - 1. Power Source: - 1. Power Source: - 1. It shall have error code display for maintenance purpose (Error diagnostic function). 54 Auto cut off built in the power source in case of over current. Over heat, under voltage, phase absence protections, phase failure indicator shall be provisioned. Suitable indication/alarm on the above failure should be provide. Protection circuit for prevention of frequent failure of power device (IGBT) shall be provided. 56 Protection circuit for prevention of frequent failure of power device (IGBT) shall be provided. 57 The machine should support both TIG and MMA welding with AC/DC output having control feature of AC balancing and frequency control. 58 Pre-set wave form control in AC welding, Sine, square and optima wave form, must be provisioned. 59 The machine should be having double pulse feature which allows pulse welding at two current levels for better travel speed and lower heat input in dc tig mode. 60 Then Machine must be integrated with water Cooling unit, which should function in synergy with the power source. 61 It should have infinitely variable stepless current control for the entire range of output current. 62 It should have infinitely variable stepless current control ling the tacking timing in the range of milliseconds (1- 200ms). 63 The machine should have capability to change the welding current during welding without extinguishing of the arc. 64 The machine should have function to set the search arc and tail arc while performing. 65 Selection of material you are about to weld Fe / SS /AL 66 Selection of Joint Type: Butt Joint / Corner Joint / edge Joint / Lap Joint / Fillet Joint / Tube Joint / Joint Position:- PA / PB-PC/PD/PE/PFPG					
Technical Features: - 1. Power Source: - 1. It shall have error code display for maintenance purpose (Error diagnostic function). 5. Auto cut off built in the power source in case of over current. Over heat, under voltage, phase absence protections, phase failure indicator shall be provisioned. Suitable indication/alarm on the above failure should be provide. 5. Protection circuit for prevention of frequent failure of power device (IGBT) shall be provided. 5. Protection circuit for prevention of frequent failure of power device (IGBT) shall be provided. 5. The machine should support both TIG and MMA welding with AC/DC output having control feature of AC balancing and frequency control. 8. Pre-set wave form control in AC welding, Sine, square and optima wave form, must be provisioned. 5. The machine should be having double pulse feature which allows pulse welding at two current levels for better travel speed and lower heat input in dc tig mode. 6. Then Machine must be integrated with water Cooling unit, which should function in synergy with the power source. 6. OPTIONAL FEATURES 6. It should have infinitely variable stepless current control for the entire range of output current. 6. It should be capable of micro tacking function controlling the tacking timing in the range of milliseconds (1-200ms). 6. The machine should have capability to change the welding current during welding without extinguishing of the arc. 6. The machine should have function to set the search arc and tail arc while performing. 6. Display must be compatible with following selection 6. Selection of material you are about to weld Fe/SS/AL 6. Selection of Joint Type: Butt Joint / Corner Joint / edge Joint / Lap Joint / Fillet Joint / Tube Joint / Tube Joint / Tube Joint / Display PE/PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	53	MMA antifreeze (OPTIONAL)			
1. Power Source: -			(Default= OFF)		
1. Power Source: -					
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58 Pre-set wave form control in AC welding, Sine, square and optima wave form, must be provisioned. 59 The machine should be having double pulse feature which allows pulse welding at two current levels for better travel speed and lower heat input in dc tig mode. 60 Then Machine must be integrated with water Cooling unit, which should function in synergy with the power source. OPTIONAL FEATURES 61 It should have infinitely variable stepless current control for the entire range of output current. 62 It should be capable of micro tacking function controlling the tacking timing in the range of milliseconds (1- 200ms). 63 The machine should have capability to change the welding current during welding without extinguishing of the arc. 64 The machine should have function to set the search arc and tail arc while performing. 65 Selection of material you are about to weld Fe / SS /AL 66 Selection of Welded material thickness from 0.5mm to 10 mm. 67 Selection of Joint Type:- Butt Joint / Corner Joint / edge Joint / Lap Joint / Fillet Joint / Tube Joint / Tube +Plate Joint 68 DISPLAY Shall be Compatible with selection of Joint Position:- PA /PB/PC/PD/PE/PF/PG			าไ		
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68 DISPLAY Shall be Compatible with selection of Joint Position:- PA /PB/PC/PD/PE/PF/PG	67	• •	•	oint / Lap	
/PB/PC/PD/PE/PF/PG	60			:/: DA	
	68		th selection of Joint Pos	ition:- PA	
69 101 function enabled with the machine - Must be available	60		Line March 1 1111		
	69	101 function enabled with the mac	nine - Must be available		

SL No	Cooling Unit minimum specifications		
	Feature	Value	Bidder's Response
1	Connection voltage	220460 V AC, 1~/3~	
2	Maximum rated supply current	1.0 A	
3	Rated cooling power at 1 l/min	0.9 kW	
4	Cooling power at 1.6 l/min	1.0 kW	
5	Degree of protection **	IP23S/IP23 or better	
6	Standards	IEC 60974-2	
7		IEC 60974-10	

OPTIC	NAL FEATURES		
<mark>8</mark>	Recommended coolant	MPG 4456	
<mark>9</mark>	Coolant pressure (max)	0.4 MPa	
<mark>10</mark>	Operating temperature range *	-20 +40 °C	
11	Storage temperature range	-20 +60 °C	
12	EMC class	A	

Scope of Supply

- 1. Welding Power Source
- 2. Earthing Cable with Clamp
- 3. GTAW torch
- 4. Water cooling unit (integrated)
- 5. Arc Welding Holder 400 Amps with cable
- 6. Trolley
- 7. Tungsten Electrode 50 Nos.
- 8. Collet 50 Nos.
- 9. Ceramic Cap 50 Nos.

6. DC TIG Welding Machine

SL No	Feature	Description	Value	Bidder's Response
1	Mains connection cable		3~, 2.5 mm2	
2	Mains connection voltage	3~ 50/60 Hz	380460 V ±10 %	
3	Maximum supply current		23 18 A	
4	Fuse		16 A	
5	Open circuit voltage (average)	MMA	55 V - 95 V	
6	Rated maximum output at 40	30 % TIG	400 A / 26 V or better	
7	°C	60 % TIG	320 A / 22.8 V	
8	(Duty cycle and process	100 % TIG	280 A / 21.2 V or better	
9	specified in the next column)	40 % MMA	350 A / 34 V	
10		60 % MMA	320 A / 32.8 V	
11		100 % MMA	270 A / 30.8 V	
12	Range of output	TIG	3 A / 1 V 400 A / 41	
			V or better	
13		MMA	10 A / 10 V 350 A /	
- 4		100 11 15 11 050 1	42 V or better	
14	Power factor, λ	400 V, MMA 350 A / 34 V	Minimum 0.9	
15	Efficiency, η	400 V, MMA 280 A / 31.2 V	Minimum 85%	
16	Idle power		16 W	
17	Operating temperature range		-20+40 °C	
18	Storage temperature range		-20+60 °C	
19	Degree of protection		IP23S/IP23 or better	
20	Recommended generator power (min)	Sgen	Min 20 kVA	
21	Wireless Remote Control communication type:	Transmitter frequency and	2.4 GHz Bluetooth, 2400- 2483.5	
22	,	power	MHz, 10 dBm	
23	Wired communication type	Remote	Analog	

24		CAN BUS	Remote-Bus or	
			equivalent	
25	Stick electrode diameters	ø mm	2.15 mm5.0 mm	
26	Standards		IEC60974-1,-3,-10	
27			IEC 61000-3-12	
<mark>28</mark>			AS 60974.1-2006	
29		-	(OPTIONAL) 3GB 15579.1	
<u> </u>			(OPTIONAL)	
	Functions TIG:	TIG HF Start, TIG LIFT	Start & TIG Spot should	
		be available		
30	Pre Flow :-	0 to 10 Sec		
31	Start Current Adjustment	5 - 300% or better		
32	Up Slope	adjustable 0-5 Secs (Ste	os of 0.1sec);	
33	Down Slope	0.1 - 15 sec or better		
34	Hot Start level	- 80% to + 100% or bett	er	
35	Hot Start time	0.1 sec to 9.9 sec		
36	TIG Pulse Frequency	0.1 hz to 500 Hz or bette	er	
37	Double Pulse Feature	Must Be available		
38	2/4 stroke	Must Be available		
39	Memories	99 memory.		
40	Hot start	-10 +10, step 1 (Defa		
41	VRD (Voltage Reduction	OFF / ON (Default = Ol	FF)	
ОРТ	Device) mode IONAL FEATURES			
42	EMC class	A		
43	Voltage supply for cooling	Ucu 380460 V		
	unit	300100 1		
<mark>44</mark>	Post Flow	0 to 30 sec		
<mark>45</mark>	Arc force	-10 +10, step 1 (Defar	alt = 0	
<mark>46</mark>	MMA antifreeze	OFF / ON (Default = Ol	FF)	
47	The machine should support b			
		oth TIG and MMA welding		
// 0	with DC output.		available	
48	It Shall be compatible with Do		available Should be	
	It Shall be compatible with Do TIG process	ouble Pulse Program in DC	available Should be available	
49	It Shall be compatible with Do TIG process DISPLAY Shall be Compatible	ouble Pulse Program in DC	available Should be available Should be	
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49	It Shall be compatible with Do TIG process DISPLAY Shall be Compatibl you are about to weld Fe / SS	ouble Pulse Program in DC e with selection of material e with Selection of Welded	available Should be available Should be available	
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50 51	It Shall be compatible with Do TIG process DISPLAY Shall be Compatible you are about to weld Fe / SS DISPLAY Shall be Compatible material thickness from 0.5mm DISPLAY Shall be Compatible Type:- Butt Joint / Corner Joint Joint/Tube Joint/Tube + Plate DISPLAY Shall be Compatible Position :- PA/PB/PC/PD/PE/IT Then Machine must be integral	e with selection of material e with Selection of Welded n to 10 mm. e with selection of Joint nt/edge Joint/Lap Join/Fillet Joint e with selection of Joint PF/PG ted with water Cooling unit	available Should be available t, Should be	
4950515253	It Shall be compatible with Do TIG process DISPLAY Shall be Compatible you are about to weld Fe / SS DISPLAY Shall be Compatible material thickness from 0.5mm DISPLAY Shall be Compatible Type:- Butt Joint / Corner Joint Joint/Tube Joint/Tube + Plate DISPLAY Shall be Compatible Position:- PA/PB/PC/PD/PE/ITTE Then Machine must be integrated which should function in synerometrics.	e with selection of material e with Selection of Welded n to 10 mm. e with selection of Joint nt/edge Joint/Lap Join/Fillet Joint e with selection of Joint PF/PG ted with water Cooling unit	available Should be available t, Should be available	
50 51 52 53 Featu	It Shall be compatible with Do TIG process DISPLAY Shall be Compatible you are about to weld Fe / SS DISPLAY Shall be Compatible material thickness from 0.5mm DISPLAY Shall be Compatible Type:- Butt Joint / Corner Joint Joint/Tube Joint/Tube + Plate DISPLAY Shall be Compatible Position :- PA/PB/PC/PD/PE/IT Then Machine must be integrated which should function in syneture (water cooling unit)	e with selection of material e with Selection of Welded n to 10 mm. e with selection of Joint nt/edge Joint/Lap Join/Fillet Joint e with selection of Joint PF/PG ted with water Cooling unit	available Should be available t, Should be available t, Should be available t, Should be available Value	
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50 51 52 53 Featu	It Shall be compatible with Do TIG process DISPLAY Shall be Compatible you are about to weld Fe / SS DISPLAY Shall be Compatible material thickness from 0.5mm DISPLAY Shall be Compatible Type:- Butt Joint / Corner Joint Joint/Tube Joint/Tube + Plate DISPLAY Shall be Compatible Position :- PA/PB/PC/PD/PE/IT Then Machine must be integrated which should function in syneture (water cooling unit)	e with selection of material e with Selection of Welded n to 10 mm. e with selection of Joint nt/edge Joint/Lap Join/Fillet Joint e with selection of Joint pr/PG nted with water Cooling unit rgy with the power source.	available Should be available Should be available Value 220460 V AC,	

57	Cooling power at 1.6 l/min	1.0 kW	
58	Degree of protection **	IP23S or better	
59	Standards	IEC 60974-2	
60		IEC 60974-10	
61	OEM	Provide OEM	
		documents	
62	IOT function	Must be enabled	
OPT	IONAL FEATURES		
63	Recommended coolant	MPG 4456	
64	Operating temperature range *	-20 +40 °C	
65	Storage temperature range	-20 +60 °C	

7. Advanced portable GMAW Machine with built-in wire feeder

SL	Feature Description	Value	Bidder's Response
No	1. Welding Power Source packag	ge	
1	Technology:	Welding Power Source to be of Advanced Pulsed Multi-process	
2	Design:	Digital, Microprocessor based, IGBT Control Inverter Type, Synergic Pulse and double pulse unit	
3	Input Supply & Power:	340 - 480V / 3ph / 50 /60 Hz.	
4	Output Current Range :	15 - 400 A when used with software driven programme.	
5		Duty Cycle @60%: 350A or better	
6		Duty Cycle @100%: 220A or better	
7	Idle Power:	100W Max	
8	Input Power @ Max Current	Not more than 20 Kva	
9	Process Capability:	Synergic/ Non-synergic, Pulsing/ Non- Pulsing capability/ GMAW/ FCAW/ SMAW/ Double Pulse for Aluminum Mig welding./ MIG Brazing for minimum 0.8 mm thick MS sheet	
10	IGBT frequency:	Min 20Khz	
11	Type of Cooling:	Air Cooled	
12	Built-in Program for different type of materials:	Separate Program for different Materials and wire size to be available in the program list with Gas Combination. Separate Program Upload facility must	
13	Number of built-in programs:	Min 100 Program option must be available in machine	
14	Provision to make and store new programs:	Must be available in machine	
15	Low amplitude high frequency pulsing	Machine should be enabled with low amplitude high frequency pulsing (upto 700 Hz) for high-speed welding in	

	T	1	T
		pulse mode.	
16	Special program for vertical	Machine should be enabled with special	
	welding	software for vertical welding through	
		the mixed nature of pulse for various	
		types of materials.	
17	Special program for thin sheet	Machine should have the facility to up	
	welding	load software to deliver higher	
		performance for MS and stainless steel	
		thin (1mm minimum) .Such software	
		should be supplied with the machine.	
18	<u> </u>	mounted and should have facility to	
		y of providing pivot mounted plate,	
	where the cylinder will be placed		
	machine should have the following		
19	a) Protection to over	Must be available in machine	
	temperature, overcurrent, under		
	voltage and power phase		
	absence and Motor Over Current		
2	Wire Feeder (in built with the po		
20	Feed Mechanism:	4 roll fully enclose fire feeder made by	
		Insulated and Non Inflammable	
2.1	XX: 1 1 .:	material.	
21	High resolution tachometer for	Must be available	
22	accurate wire feed speed control	0.25/	
22	Wire feed range:	0-25 m/min	
23	Wire filler diameter:	Solid- 0.8mm-1.6mm	
24	Cored:	0.8mm- 2.0mm	
OPT	TONAL FEATURES		
<mark>26</mark>	Wire Guide:	Split Guides for ease of assembling	
		without tools for better feeding.	
<mark>27</mark>	Wire feed motor	Dynamic feeding of wire for pipe	
		welding in various positions	
<mark>28</mark>	LED lighting for better visibility in		
Disp	lay must be compatible with follow	ing selection	
29	Selection of material you are abou	t to weld Fe / SS /AL	
30	Selection of Welded material thick	cness from 0.5mm to 10 mm.	
31	Selection of Joint Type:- Butt Join	t / Corner Joint / edge Joint / Lap,Joint /	
	Fillet Joint etc	and the second s	
32	DISPLAY Shall be Compatible wi	ith selection of Joint Position: DA	
34	/PB/PC/PD/PE/PF/PG	in selection of John Position PA	
22		() 200 11 15 17	
<mark>33</mark>	Wire Spool Dia & Weight	(max) 300 mm with 15 Kg or more	
Tha	<mark>(OPTIONAL)</mark> wire feeder shall have the following	footuwes Compulsory footuwes	
34	Voltage, Amps & WFS digital display	Must be available	
35	2-Step/ 4-Step procedure,	Must be available	
36	Memory Limit setting for:- •	Must be available	
	Welding Current • Wire Feed		
			1
	Speed, WFS • Welding Voltage,		
	Speed, WFS • Welding Voltage, Wire feed speed unit selection- meter/min and inch/ min.		

37	Degree of Protection:	IP23S/IP23 or better	
38	Digital Communication	Must be available	
39	High resolution tachometer for	Must be available	
	accurate wire feed speed control		
	IONAL FEATURES		
<mark>40</mark>	Wire INCH and Gas Test Switch	Must be available	
<mark>41</mark>	Drive roll change:	Tool less quick change over with split	
		guide	
<mark>42</mark>	Wire drive pressure setting:	To select different wire drive pressure	
Evrto	nded Dugh mull wine feeden og nen k	for different welding wires	
	nded Push pull wire feeder as per b	-	
<mark>43</mark>	In view of reach to remote areas wilding	plant must have provision for distance	
		the main wire feeder from the power	
		assembly, however, it should be possible	
		torch of international Std with EURO	
	Connection having length 3 /3.5mt		
<mark>44</mark>	<u> </u>	at least 10 mts. The motion of feeler wire	
		synchronized for smooth feeding through	
		There should be control adjustments for	
		ge at the torch connection end within the	
	extended remote feeding system.		
<mark>45</mark>		have the same ratings, wire sizes, class	
		re feeder. However 2 roll drive or 4 roll	
10	filler wire drive mechanism shall b		
<mark>46</mark>	welding parameters	r should have facility to adjust various	
	weiding parameters		
47	IOT Based Features	Should be built in with the machine	
	Torch Specification:-	Should be built in with the machine	
	<u> </u>	Must be Applies ble	
48	MIG Torch Duty Cycle :- 60% @ 400 A	Must be Applicable	
49	MIG TORCH Euro Connector	Must be Applicable	
50	AIR Cooling	Must be Applicable	
51	OEM	Provide OEM documents	
	<u> </u>	110,100 CENT GOODING	

8. GMAW machine for Thin Sheet welding

S	Feature Description	Value	Bidder's Response	
L No	1. Welding Power Source	1. Welding Power Source package		
1	Technology:	Welding Power Source to be of Advanced Pulsed Multi-process		
2	Design:	Digital, Microprocessor based, IGBT Control Inverter Type, Synergic Pulse and double pulse unit		
3	Input Supply & Power:	340 - 480V / 3ph / 50 /60 Hz.		
4	Output Current Range :	15 - 400 A when used with software driven programme.		
5		Duty Cycle @60%: 350A or better		
6		Duty Cycle @100%: 220A or better		

7	Idle Power:	100W Max		
8	Input Power @ Max	Not more than 20 Kva		
	Current			
9	Process Capability:	Synergic/ Non-synergic, Pulsing/ Non-Pulsing		
		capability/ GMAW/ FCAW/ SMAW/ Double Pulse for Aluminum Migwelding./ MIG		
		Brazing for minimum 0.8 mm thick MS sheet		
10	IGBT frequency:	Min 20Khz		
11	Type of Cooling:	Air Cooled		
12	Built-in Program for	Separate Program for different Materials and		
	different type of materials:	wire size to be available in the program list		
		with Gas Combination. Separate Program		
		Upload facility must be available		
13	Number of built-in	Min 100 Program option must be available in		
1.4	programs: Provision to make and store	machine Machine		
14	new programs :	Must be available in machine		
15	Special program for thin	Machine should have the facility to up load		
	sheet welding	software to deliver higher performance for MS		
	_	and stainless steel thin (1mm minimum) .Such		
		software should be supplied with the machine.		
16		rolley mounted and should have facility to easy		
		y of providing pivot mounted plate, where the		
ОРТ	cylinder will be placed TONAL FEATURES			
17	Low amplitude high	Machine should be enabled with low		
l l	frequency pulsing	amplitude high frequency pulsing (up to 700		
	requency pulsing	Hz) for high-speed welding in pulse mode.		
The	machine should have the follo			
18	a) Protection to over	Must be available in machine		
	temperature, overcurrent,			
	under voltage and power			
	phase absence and MotorOver Current			
	Wotorover Current			
	2. Wire Feeder (in built wit	h the power source)		
19	Feed Mechanism:	4 roll fully enclose fire feeder made by		
		Insulated and Non Inflammable material.		
20	High resolution tachometer	Must be available		
	for accurate wire feed			
21	speed control	0.25		
21	Wire feed range:	0-25 m/min		
22	Wire filler diameter:	Solid- 0.8mm-1.6mm		
23 OPT	Cored:	0.8mm- 2.0mm		
	TONAL FEATURES	Cult Cuidos fou casa af assaulti a midia t		
<mark>24</mark>	Wire Guide:	Split Guides for ease of assembling without tools for better feeding.		
25	Wire feed motor	Dynamic feeding of wire for pipe welding in		
		various positions		
<mark>26</mark>	LED lighting for better visibil			
Disp	lay must be compatible with f	ollowing selection		
27	Selection of material you are			
28	-	thickness from 0.5mm to 10 mm.		
20				

29	Selection of Joint Type:- Butt Joint / Corner Joint / edge Joint / Lap, Joint / Fillet Joint etc			
30	DISPLAY Shall be Compatible with selection of Joint Position:- PA /PB/PC/PD/PE/PF/PG			
31	Wire Spool Dia & Weight (OPTIONAL)			
The	wire feeder shall have the follo	owing features - Compulsory features		
32	Voltage, Amps & WFS digital display	Must be available		
33	2-Step/ 4-Step procedure,	Must be available		
34	Memory Limit setting for: • Welding Current • Wire Feed Speed, WFS • Welding Voltage, Wire feed speed unit selection- meter/min and inch/ min.	Must be available		
35	Degree of Protection:	IP23S/IP23 or better		
36	Digital Communication	Must be available		
37	High resolution tachometer for accurate wire feed speed control	Must be available		
OPT	TIONAL FEATURES			
38	Wire INCH and Gas Test Switch	Must be available		
<mark>39</mark>	Drive roll change:	Tool less quick change over with split guide		
40	Wire drive pressure setting:	To select different wire drive pressure for different welding wires		
Exte	nded Push pull wire feeder as	per below details		
41	or impossible the welding pla system without shifting the m an extension cable assembly, traditional Mig welding torch having length 3 /3.5mts.	as where approach of std wire feeder if difficult nt must have provision for distance wire feeder ain wire feeder from the power source through however, it should be possible to use a std of international Std with EURO Connection		
<mark>42</mark>	through the entire length show bend and loops of extension c	Id be at least 10 mts. The motion of feeler wire ald be synchronized for smooth feeding through able There should be control adjustments for Voltage at the torch connection end within the em.		
43		nould have the same ratings, wire sizes, class of wire feeder. However 2 roll drive or 4 roll filler exaceptable		
44	The Extended Push pull wire feeder should have facility to adjust various welding parameters			
45	IOT Based Features	Should be built in with the machine		
43		Should be built in with the machine		
16	MIG Torch Specification:	Must be Applicable		
46	MIG Torch Duty Cycle :- 60% @ 400 A	Must be Applicable		
47	MIG TORCH Euro Connector	Must be Applicable		
	1	36 (1 4 1) 11		
48	AIR Cooling	Must be Applicable		

9. Shielded Metal Arc Welding Machine

SL No	Feature Description	Value	Bidder's Response
1	Technology	IGBT based Digital Inverter Technology	
2	Number of phases	3	
3	Rated frequency	50/ 60 Hz	
4	Rated input voltage	400V	
5	Input voltage range	380V - 440V	
6	Rated output current range	10A - 400A or better	
7	Maximum no-load voltage (OCV)	80V - 95V	
8	Rated duty cycle	500 A or more @ 40%-60% Duty Cycle@ 40 Degree	
9	Degree of protection	IP23S/IP23 or better	
10	Arc characteristic	CC	
11	Suitable for Electrode Dia	2.15, 3.15, 4mm and 5mm Electrode	
12	Electrode Function	Cellulosic Electrode Facility must be available	
13	Power Factor	0.89 or more	
14	Insulation Class	Н	
15	Protection	Thermal, Under/Over Voltage, Over Current	
16	Digital Error Code	OVER Temp , Over Voltage , Under Current	
17	ARC Force Adjustment	Must be Available	
18	Hot start Adjustment	Must be Available	
19	Anti Stick Feature	Must be Available	
20	Scratch Tig	Applicable	
21	Error Log	Applicable	
22	Cooling	Forced Air Cooling with 2 Cooling Fans or more	
23	VRD (Voltage Reduction Device)	In built	
24	Compliance must be	EN 60974-1 / IEC 60974-1	
25	OEM	Provide OEM documents	
26	IOT Based Features	Must be Available with the machine.	
OPT	IONAL FEATURES		
<mark>27</mark>	Parameter setting	Through multi turn potentiometer	
<mark>28</mark>	Fine adjustment of Current	Continuous Adjustment of Voltage	
<mark>29</mark>	MMAW / Tig Feature	Separate Digital Selector Switch	
30	Cordless Remote control facility	Optional	
31	Display	2 Separate display must be available for Current & Voltage	

10. Shielded Metal Arc Welding Machine with Gouging facility

SL No	Feature Description	Value	Bidder's Response
1	Technology	IGBT based Digital Inverter	
		Technology	
2	Number of phases	3	
3	Rated frequency	50/ 60 Hz	
4	Rated input voltage	400V	
5	Input voltage range	380V - 440V	
6	Rated output current range	10A - 500A or better	
7	Maximum no-load voltage (OCV)	80V - 95V	
8	Rated duty cycle	500 A or more @ 40%-60% Duty Cycle@ 40 Degree	
9	Degree of protection	IP23S or better	
10	Arc characteristic	CC	
11	Suitable for Electrode Dia	2.15, 3.15, 4mm and 5mm Electrode	
12	Electrode Function	Cellulosic Electrode Facility must be available	
13	Power Factor	0.89 or more	
14	Insulation Class	Н	
15	Protection	Thermal, Under/Over Voltage, Over Current	
16	Digital Error Code	OVER Temp , Over Voltage , Under Current	
17	ARC Force Adjustment	Must be Available	
18	Hot start Adjustment	Must be Available	
19	Anti Stick Feature	Must be Available	
20	Scratch Tig	Applicable	
21	Error Log	Applicable	
22	Cooling	Forced Air Cooling with 2 Cooling	
		Fans or more	
23	VRD (Voltage Reduction Device)	In built (This is used to avoid	
24	Compliance must be	electrocution at the time welding)	
24	Compliance must be	EN 60974-1 / IEC 60974-1	
25	Gauging facility	Should be available	
26	OEM	Provide OEM documents	
27	IOT Based Features	Must be Available with the machine.	
	ONAL FEATURES	The state of the s	
28 20	Parameter setting	Through multi turn potentiometer	
29 20	Fine adjustment of Current	Continuous Adjustment of Voltage	
30	MMAW / Tig Feature	Separate Digital Selector Switch	
31	Cordless Remote control facility	Optional	
<mark>32</mark>	<u>Display</u>	2 Separate display must be available for Current & Voltage	

11. Advanced GMAW Machine for Pipe welding

SL	Feature Description	Value	Bidder's Response
No	1. Welding Power Source package		
1	Technology:	Welding Power Source to be of	
		Advanced Pulsed Multi-process	
2	Design:	Digital, Microprocessor based, IGBT	
		Control Inverter Type, Synergic Pulse	
		and double pulse unit.	
3	Input Supply & Power:	340 - 480V / 3ph / 50 /60 Hz.	
4	Output Current Range:	15 - 400 A when used with software	
		driven programme.	
5		Duty Cycle @40% - 60% : 400A or	
		better	
6		Duty Cycle @100% : 300A-350A or	
	7.11	better	
7	Idle Power:	100W Max	
8	Input Power @ Max Current	Not more than 22.2 Kva	
9	Process Capability:	Synergic/ Non-synergic, Pulsing/ Non-	
		Pulsing capability/ GMAW/ FCAW/	
		SMAW/ Double Pulse for Aluminum	
		Migwelding./ MIG Brazing for	
10	ICDT for any and	minimum 0.8 mm thick MS sheet	
10	IGBT frequency:	Min 20Khz	
11	Type of Cooling:	Air Cooled	
12	Built-in Program for different type of materials:	Separate Program for different Materials and wire size to be available	
	of materials:		
		in the programlist with Gas	
		Combination. Separate Program Upload facility must be available.	
13	Number of built-in programs:	Min 100 Program option must be	
13	Number of built-in programs.	available in machine	
14	Provision to make and store new	Must be available in machine	
14	programs:	With the available in machine	
15	Low amplitude high frequency	Machine should be enabled with low	
13	pulsing	amplitude high frequency pulsing	
	pulsing	(upto 700 Hz) for high speed welding	
		in pulse mode.	
16	Special program for vertical	Machine should be enabled with	
	welding	special software for vertical welding	
		through the mixed nature of pulse for	
		various types of materials.	
17	Special program for thin sheet	Machine should have the facility to up	
	welding	load software to deliver higher	
		performance for MS and stainless steel	
		thin (1mm minimum) .Such software	
		should be supplied with the machine.	
18	Special program for pipe welding	Machine should have facility to up	
		load software to deliver higher	
		performance for pipe welding for all	
		positions . Such software should be	
		supplied with machine. Pipe welding	
		fixture should be supplied along with	
10	Th. D	the machine.	
19	I he Power source should be trolley i	mounted and should have facility to easy	

22 H a 23 V 24 V 25 C OPTION 26 V 27 V 28 L Display: 29 S 30 S 31 S F 32 I //I 33 V (0) The wire	Protection to over temperature, ver current, under voltage and ower phase absence and Motor Over Current Wire Feeder Geed Mechanism: High resolution tachometer for ccurate wire feed speed control Vire feed range: Wire filler diameter: Cored: NAL FEATURES Wire Guide:	Must be available in machine 4 roll fully enclosed wire feeder made by Insulated and Non Inflammable material with top loading mechanism of wire roll Must be available 0-25 m/min Solid- 0.8mm-1.6mm 0.8mm- 2.0mm	
21 F 22 H a 23 V 24 V 25 C OPTION 26 V 27 V 28 L Display: 29 S 30 S 31 S F 32 I //I 33 V (0) The wire	Feed Mechanism: High resolution tachometer for ccurate wire feed speed control Vire feed range: Vire filler diameter: Cored: NAL FEATURES Vire Guide:	by Insulated and Non Inflammable material with top loading mechanism of wire roll Must be available 0-25 m/min Solid- 0.8mm-1.6mm 0.8mm- 2.0mm	
21 F 22 H a 23 V 24 V 25 C OPTION 26 V 27 V 28 L Display: 29 S 30 S 31 S F 32 I //I 33 V (0) The wire	Feed Mechanism: High resolution tachometer for ccurate wire feed speed control Vire feed range: Vire filler diameter: Cored: NAL FEATURES Vire Guide:	by Insulated and Non Inflammable material with top loading mechanism of wire roll Must be available 0-25 m/min Solid- 0.8mm-1.6mm 0.8mm- 2.0mm	
23 V 24 V 25 C OPTION 26 V 27 V 28 L Display: 29 S 30 S 31 S F 32 I //I 33 V (0) The wire	ccurate wire feed speed control Vire feed range: Vire filler diameter: Cored: NAL FEATURES Vire Guide:	0-25 m/min Solid- 0.8mm-1.6mm 0.8mm- 2.0mm Split Guides for ease of assembling	
23 V 24 V 25 C OPTION 26 V 27 V 28 L Display: 29 S 30 S 31 S F 32 I //I 33 V (0) The wire	Vire feed range: Vire filler diameter: Cored: NAL FEATURES Vire Guide:	Solid- 0.8mm-1.6mm 0.8mm- 2.0mm Split Guides for ease of assembling	
24 V 25 C OPTION 26 V 27 V 28 L Display: 29 S 30 S 31 S F 32 I // // // 33 V The wire	Vire filler diameter: Cored: NAL FEATURES Vire Guide:	Solid- 0.8mm-1.6mm 0.8mm- 2.0mm Split Guides for ease of assembling	
25 COPTION 26 V 27 V 28 L Display: 29 S 30 S 31 S F 32 I //I 33 V (0) The wire	Cored: NAL FEATURES Vire Guide:	0.8mm- 2.0mm Split Guides for ease of assembling	
26 V 27 V 28 L Display: 29 S 30 S 31 S F 32 I //I 33 V The wire	NAL FEATURES Vire Guide:	Split Guides for ease of assembling	
27 V 28 L Display: 29 S 30 S 31 S F 32 I //I 33 V (0)			1
28 L Display: 29 S 30 S 31 S F 32 I //I 33 V (0) The wire	Vire feed motor	without tools for better feeding.	
Display 29 S 30 S F 32 I // 1/ 33 V (1/2)		Dynamic feeding of wire for various positions of welding	
29 S 30 S 31 S F 32 I // 33 V	ED lighting for better visibility insi	de feeder	
29 S 30 S 31 S F 32 I // 33 V	must be compatible with following	g selection	
30 S 31 S F 32 I 33 V	Selection of material you are about t		
31 S F 32 I //I 33 V	Selection of Welded material thickness		
33 V	Selection of Joint Type:- Butt Joint / Corner Joint / edge Joint / Lap, Joint / Fillet Joint etc		
The wire	DISPLAY Shall be Compatible with PB/PC/PD/PE/PF/PG	n selection of Joint Position:- PA	
The wire	Vire Spool Dia& Weight OPTIONAL)	(max) 300 mm with 15 Kg or more	
	e feeder shall have the following fo	eatures- Compulsory features	
	oltage, Amps & WFS digital isplay	Must be available	
	-Step/ 4-Step procedure,	Must be available	
36 N V S V	Memory Limit setting for:- • Velding Current • Wire Feed Speed, WFS • Welding Voltage, Vire feed speed unit selection- meter/min and inch/ min.	Must be available	
	Degree of Protection:	IP23S	
	Digital Communication	Must be available	
	ligh resolution tachometer for	Must be available	
	ccurate wire feed speed control		
OPTION	NAL FEATURES		
40 V	Vire INCH and Gas Test Switch	Must be available	
41 E	Drive roll change:	Tool less quick change over with split guide	
42 V	Vire drive pressure setting:	To select different wire drive pressure for different welding wires	

43	In view of reach to remote areas where approach of std wire feeder if difficult or impossible the welding plant must have provision for distance wire feeder system without shifting the main wire feeder from the power source through an extension cable assembly, however, it should be possible to use a std traditional mig welding torch of international Std with EURO Connection		
	having length 3 /3.5mts.		
44	The Length of extension should be at least 10 mts. The motion of feeler wire through the entire length should be synchronized for smooth feeding through bend and loops of extension cable There should be control adjustments for welding current and welding Voltage at the torch connection end within the extended remote feeding system.		
45	The remote feeding System should have the same ratings, wire sizes, class of insulation and speed range of wire feeder. However 2 roll drive or 4 roll filler wire drive mechanism shall be acceptable		
<mark>46</mark>	The Extended Push pull wire feeder welding parameters within itself		
47	IOT Based Features	Should be built in with the machine	
	MIG Torch Specification:-		
48	MIG Torch Duty Cycle :- 60% @ 400 A	Must be Applicable	
49	MIG TORCH Euro Connector	Must be Applicable	
50	AIR Cooling	Must be Applicable	
51	OEM	Provide OEM documents	

12. Advanced Welding by Robotics

1	ROBOT		Bidder's Response
I	Type		-
Ii	Controlled axis	6axis	
Iii	Installation type	Floor , Wall, Celling	
Iv	Payload	6kgs or more	
V	Reach	1400mormore	
Vi	Axis Range	A1 ±170°, A2-185°/65°, A3-137°/163° A4 ±185 °A5 ±120° A6 ±350°	
Vii	Axis Speed	A1156°/sec, A2156°/sec, A3156°/sec, A4343°/sec A5 343°/sec, A6350°/sec	
Viii	Supplementary load	10 Kg or more	
Ix	Drive method	Electric servo drive by AC servo motor	
X	Repeatability	±0.04mm	
Xi	Protection rating(IEC60529)	IP54	
Xii	Protection rating in line wrist (IEC60529)	IP54	
xiii	Footprint	333mm x 307mm	
Xiv	Control Cables	Shielded type	
Xv	Teach Pendent	Hot Pluggable	
xvi	Acoustic noise level	65 dB	
Xvii	Power Supply	400VAc +/-10%,50Hz	
xvii i	IOT Compatible	User Interface for local area monitoring of machine, via Laptop or any device connected to central cloud or server of Robot for online monitoring, controlling of Robot Parameter and data logging. Online Backup.	
2	Power Source		

I	Welding process	MIG	
II	Cooling process	Air	
III	Voltage rating	12V-46V	
IV	Amps rating	20V-400Amps	
V	Duty Cycle	40%-60% at 400Amps, 100 % duty cycle 300A-	
		350 amps	
VI	No load Power	maximum30W	
V 1	Consumption		
		Dualmotor4-wheel drive Wire Feeder with	
VII	Wire Feeder	wireinching, wireretract, gas flow test and gas	
		purging button; Dual Valve for Welding gas and	
		Compressed gas.	
VIII	Communication	Device NET with Universal Adaptor card	
	Special inputs and outputs	Emergency stop, Door Switch input signals,	
IX	Special inputs and outputs	Simulation mode output, Process feedback byte to	
		RC, User Level restricted outputs	
37	TOTALON 1	Web User Interface for local area monitoring of	
X	IOT4.0Network	machine, via Laptop/Pendent of Robot for online	
		monitoring, controlling of welding parameters,	
VI	Decree of must set ion	Logbook export for previous machine weld data IP23S/IP23 or better	
XI	Degree of protection IOT Based Features		
XII		Must be built in with the machine	
+	IONAL FEATURES		
XIII	Seam tracking	Through the arc seam tracking from the Power Source	
XIV	Storage Temperature	-40 to 60 degree Centigrade	
<mark>XV</mark>	Special feature -Low	Machine should be enabled with low amplitude high	
	amplitude high frequency	frequency pulsing (upto 700 Hz) for high speed welding	
	pulsing for high-speed	in pulse mode.	
	welding		

Input Stabilizer, Integration and Mechanical Setup	Bidder's Response
1)400~440Vac, 3phase, 50Hz/ phase online Stabilizer with	
output isolation transformer (including Battery and installation)	
with 1 year Warranty.	
2) Robot grouting and mounting on pedestal	
3) Controller and Robot Setup-dedicated setup and training for Robot and	
Power Source	
4) IOT4.0 setup on Robot and Power Source-Online monitoring of parameters from any workstation via LAN connection	
5) Wire feeder+ spool mounting + welding torch mounting	
6) Mounting plates for Wire Feeder	
7) Communication setup	
8) Welding trials on job	
9) Welding table with Powder coating	

13. Universal Welding Management Software for IOT

IoT - Specific		
Requirements	Software + Hardware	Bidder's Response
Integration directly with all Welding	Should be Available	
Machines		
Data Storage on Memory card	Should be Available	
Software access	Web-based Interface Required	

Access over PCs or Mobile Phones	Should be Available		
Machine Traceability	Should be Available		
Real time Production & Quality	Should be Available		
Monitoring			
Real time Production & Quality	Should be Available		
parameters recording			
Data Analytics	Welding Productivity& Quality		
	data analysis with Bar Charts,		
	Heatmaps etc. required		
Welder Name Entry	Should be Available		
OPTIONAL FEATURES			
Remote access to system over internet	Should be Available		

14. Welding Simulator

SL. NO.	PARAMETERS	SPECIFICATION	Bidder's Response
1	T . Q 1	G: 1 DI 220V 50 CO II 5 114	
1	Input Supply	Single Phase 230V, 50 - 60 Hz, 5 - 11A	
2	Polarity selection	DC+, DC- & AC	
3	Max Power consumption	50 W	
4	Current / Voltage	50A to 240A / 10 - 32 V	
<mark>5</mark>	Weight of Simulator (Without accessories)	Less than 100 kg Portable Model or Stand Up Terminal. Sturdy and metal body design (OPTIONAL FEATURE)	
	3D Software		
6	Technology	Augmented Reality / Virtual Reality	
7	Process Simulated	GMAW (MIG/MAG) , FCAW , SMAW & GTAW	
8	Joint Configurations	Butt joint, T joint, Lap joint, Pipe to pipe joint	
		& pipe to plate joint	
9	Welding Positions	Upto 6G & 6F	
10	Welding Practice	Workpiece to provide minimum 11 inch long weld bead practice	
11	Work piece Thickness	3mm ,6mm & 10mm	
12	Work piece material	Carbon Steel	
13	Practice option	4 types of weaving & multilayer option (min 3 layers)	
14	Parameter adjustment	Current , Voltage , wire feed speed & Gas pressure	
15	Machine Structure	Metallic body	
16	Reality Helmet	HD Screen helmet	
	SIMULATION FEATUR		
17	Simulation Methodology	Green learning with no real arc or real fumes	
18	Weld bead simulation	Continuous arc with weld bead formation	
19	Workpiece fixation	Flexibility to place the workpiece at various locations & not to be fixed in a locator	
20	Workpiece hardware	Physical (Haptic), No virtual images (OPTIONAL FEATURE)	
	GMAW PROCCESS SIM	IULATION	
21	Metal Transfers	Short circuit, Globular & Spray mode	
22	Wire types	Solid & Flux cored	
23	Wire dia selection	0.8 , 1.0 & 1.2mm	
24	Gas option mode	Co2 & Mixed gas	

25	Wire feed speed	Upto 20m/min	
26	Torch Operation	2 step & 4 step	
27	Welding Torch	Torch should be of the same brand/OEM	
	SMAW PROCCESS SIMULATION		
28	Electrode Types	Rutile, Basic & Cellulosic coated electrodes	
29	Dia of electrode	2.5 mm, 3.15 mm & 4.0 mm Dia	
	SMAW simulation	Simulates the electrode consumption & slag	
30		removal	
	GTAW PROCCESS SIM	ULATION	
31	Practice	With Tig filler wire	
32	Filler diameter	2.0 & 2.4mm	
33	Gas option mode	Argon	
34	Torch Operation	2 step & 4 step	
	Welding Torch	Euro Connector - Industrial Torches (Binzel /	
35		TBI etc)	
	WELDING ANALYSIS A		
		Arc length, Stick out, Welding Speed, Work	
36	Skill Analysis	angle, Travel angle & Welding path (Work &	
		Travel angle for tig filler wire)	
37	Defect Analysis	Porosity, Spatter, Burn through & Inclusions.	
38	Evaluation Report	Percentile & Graphical report	
<mark>39</mark>	Visual Inspection	Hold the job in hand and inspect (OPTIONAL	
	HADDWADE	FEATURE)	
	HARDWARE	Intel® Core i7 3770, 4 Cores	
40	Processor	3.60 GHZ Speed, Cache 8MB	
40	Flocessoi	Intel® Turbo Boost, Intel® Hyper Threading	
41	Chipset	Intel® H61(B3) Express Chipset	
42	RAM	16 GB (2x2048Mb) DIMM DDR4	
43	Graphic Board	1024 MB GDDR5	
44	Hard Disc	Solid State, 64GB SSD Now, SATA2 2.5"	
45	Audio	8-Channel, High Definition Audio	
46	Operating System	Windows 10	
47	Port For External	VGA, Internet & USB ports	
7/	Connection	VGA, Interfect & CSB ports	
	Connection	Comply with CE & FCC regulations - Report	
		to be enclosed	
	KEY FEATURES FOR	Certificate of software validated by any Indian	
48	SAFETY, QUALITY,	or International	
	VALIDATION AND	welding society	
	AUTHENTICITY	ISO Certification for Quality & Environment to	
		be enclosed	
		1. Suppliers to confirm technically against each	
		and every point. Just Available, as per specs &	
49	Tender Condition	Ok will not be accepted	
		2. If required the suppliers must organize a	
		demo to prove the above technical parameters.	
		prove the doors technical parameters.	

15. Manual Air Plasma Cutting Machine

Feature Description	Value	Bidder's Response	
Power source	IGBT Inverter based		
Maximum Cutting Capacity	20mm		
Quality Cut			
Maximum Cutting Capacity	40mm		
Severance Cut			
Material to Cut	Ferrous &Nonferrous metals		
Input Supply	415 V 3 ph, 50 Hz		
Input rating	16 - 18 KVA		
Output current	10 - 100 Amps Stepless Adjustable		
OCV	320 V DC		
Duty Cycle	100%- 60A		
Compressor HP & Pressure	Min 1.5 HP / 5.0 - 5.5 Kg/sq. cm		
Air Flow	175 - 220 L / min		
Plasma Head Technology	Built in Cyclone Technology		
General features			
-Current Control Knob			
-Air pressure LED Indicator			
-Air pressure adjusting /control knob			
	-Mode selection		
-Power On Indicator			
-Gas test / Set position			
-Insufficient Air Pressure warning I	ndicator		
-Over temperature warning			
-Fault Error Indicator			
-The power source should have provision to be integrated with CNC profile			
cutting machine Hand Torch			
OPTIONAL FEATURES	Minimum 8 m length		
-Insufficient Air Pressure warning In	ndicator		
	for straight head torch for automated		
application with			
1 1 1			

Consumables

- 1. Cutting Electrode 50 Nos.
- 2. Shield Cap 50 Nos.
- 3. Tip 50 Nos.

16. Handheld Laser Welding Machine

SL	Parameter	Description	Bidder's Response
No.			
1	Laser Power	Upto 2 kW or more	
2	Wave Length	1080nm or more	
3	Mode of Operation	Continuous Wave (CW)	
4	Wall-Plug Efficiency	>30% or better	
5	Out Power Turning range	10-100%	
6	Emission Modulation upto	5 kHz	
7	Operational Voltage	1 phase (A.C) (230v-50Hz)	
8	Optional	Wire Feeder, Wobbling Head	

17. Air Compressor

SL	PARAMETERS	SPECIFICATION	Bidder's Response
No			
1	Type	Air Cooled, Encap Series Tank Mounted	
		Rotary Screw Air Compressor,	
		Single stage	
2	Motor	5.5 kW/ 7.5 HP, 415 V, 3 Phase/ 50 Hz	
		Induction Motor	
3	Working Pressure	9.5 bar g or 138 psi g	
4	Maximum Pressure	9.7 bar g or 141 psi g	
5	Free Air Delivery	20 CFM OR 0.57m³/min	
6	Dimension	Should not exceed (Length x Breadth x Height)	
		(615 x 715 x 845) mm	
7	Noise	64dB (A) max.	
8	Starter	Direct on Line Starter	
9	Version	Canopied	
10	Tank	220/270 litres, 10 kg/cm2, Horizontal, Fitted	
		with Safety Valves, pressure	
		gauge and Auto drainage valve.	
11	Air Dryer		
12	Rating	20 CFM OR 0.57m³/min	
13	3 Maximum Pressure 16 bar g		
14	Cooling Media	Air	
15	Filter	Downstream Pre, Fine & Carbon Filters,	
		Capacity-90-1200 cfm, Working pressure - 7-60	
		bar, Filtration Range-1-0.003 micron	

18. Welding Booths

Technical Specification of Different kind of Welding Booth and its accessories

SL. NO.	ITEMDESCRIPTION	QTY
1.0	Trainee Welding Booths	15 Nos.
2.0	Laser welding Booth & Table	1No.
3.0	Gas Cutting Booth & Table	1No.
4.0	Plasma Cutting Booth & Table	1No.
5.0	Robotic Welding Booth & Table	1No.

1.0	Trainee Welding Booths/ Laser welding Booth/ Plasma Cutting Booth	Bidder's Response
1.1	Welding Table With approximate dimension (1010x820x1570 mm)	
1.2	No Asbestos to be used	
1.3	Welding table should be fitted with grates of size(1000x750 mm) approximately and spatter free. Nitride finish protects the Welding Table against rust and weld spatter.	
1.4	Provision of fume collection from the top and spatter, slag, dust and Waste collection tray at the bottom of the workplace	
1.5	Storage facility with two compartments to be provided at the bottom of the waste collection tray	
1.6	Provision for holder/torch mounting	
1.7	Booths should be powder coated	
1.8	Welding fixtures for all position welding to be provided with each table	

1.9	Gross Weight of the table – max. 150 Kg.	
1.10	The complete system shall be fabricated as per ISO 21904-1 :2020	

2.0	Gas Cutting Booth	Bidder's Response
2.1	Made of MS angle from (40X40X6)mm	
2.2	Size:(1220X920x 600)mm(Lx W x H)	
2.3	With fire Bricks of IS Standard	
2.4	Fitted with Mechanical Gas Economizer –1 each for working area	
2.5	Can accommodate 2 welders face to face	
2.6	Working area to be separated by MS plate painted with heat Resistant paint.	
2.7	Provision for Oxygen &DA gas to be provided with the booths.	

3.0	Robotic Welding Booth	Bidder's Response
3.1	Made of MS angle from (40X40X6)mm	
3.2	Size:(6.0 x 6.0 x 2.0)mtr (Lx W x H)	
3.3	With fire Bricks of IS Standard	
3.4	3-Side Partitioning and Front Side Lateral Sliding(welding Strip Curtain,) with	
	Strips	

Welding Booths full set including Twin Suction from Down Draft Table as per the details given below

Description

A professional welding and grinding workstation that effectively removes all air pollutants from the working zone. This is well suited for fumes and dust extraction during MIG/MAG welding processes or inert gas welding with consumable electrodes and machining processes of grinding, polishing and similar. The table must be connected to the external air extraction system. It is highly recommended to use filter units to clean the air extracted from the table.

Applications

- Welding processes
- Machining processes (grinding, polishing, sharpening etc.)

Features

- Adjustable height of the table
- Robust carbon steel grate working surface
- Equipped with spark-arrester
- Removable side protection panels
- Lockable toolbox
- Delivered with built-in lights

Delivery set

- Flexible protection screen
- Luminescent lamp
- Built-in spark arrester

Extraction arm

Features

- Free flow ducts
- Pneumatic cylinder support
 Built-in damper
- Wide selection of different types
 Robust design
- Built in light and fan start/stop options

Technical characteristics

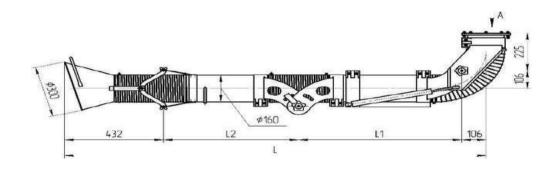
Reach area, m	Diameter, mm	Recommended airflow, m³/h	Installation height, m
2	160	1000-1200	2

Type of mountingWith bracket (asper standard& requirement)

Included:

- Bracket
- Connection hose
- 2 x Hose clamp

Dimensions



L, mm	L1, mm	L2,mm	Weight, kg
1840	713	589	22

19. OXY Fuel Cutting Torch

SL. NO	PARAMETERS	SPECIFICATION	Bidder's Response
1	Technology	Nozzle Mixing Technology	
2	Standards	Confirms to EN ISO5175	
3	Head	90 degree solid forged brass head	
4	Tubes	Stainless Steel Tubes	
5	Handle	Aluminum handle with heat resistant Anodized coating	
6	Liver	Stainless Steel	
7	Knobs	Forged Brass	
8	Torch	should have replaceable gas inlet connection nipple	
9	Nipples	Forged Brass	

10	Should be capable for flame gouging	Should be available
11	Should be useful till 300 mm thick cutting	Should be available
12	Absolute Safety	High resistance to backfires
13	Rugged design which ensures maximum strength	Should be available
14	Balanced Weight	Comfortable for continuous operation
15	Accurate precise flow rates	Should be available
16	Heavy duty applications even at low cylinder pressures	Should be available

20. OXY Fuel Brazing Torch

SL.	PARAMETERS	SPECIFICATION	Bidder's Response
NO.			-
1	Technology	Injector Mixing Technology	
2	Standards	Confirms to EN ISO5175	
3	Head	Insulated Aluminum handle	
4	Tubes	Stainless Steel	
5	Handle	Forged Brass	
6	Liver	Forged Brass	
7	Supplied with 5 nozzles	25,50,75,100,150 with spanner	

21. Stainless Steel Powder Hand Cutting Torch

Purpose	for cutting of heat resistant stainless steel and high carbon steels up to 300 mm, and for Nonferrous materials and cast iron up to 150 mm material thickness.	Bidder's Response
Torch Length	750 mm	
Cutting Range	25 – 300 mm	
Fuel Gas	Acetylene	
Accessories	 Torch Carriage Radius Bar Complete Nozzle Cleaner In Case Rubber Ring Torch Spanner Oxygen Hose 9 Mm Fuel Gas Hose 9 Mm Powder / Compressed Air Hose 6 Mm Powder Cutting Nozzle 25 – 40 Mm Powder Cutting Nozzle 40 - 60 Mm Powder Cutting Nozzle 60 - 100 Mm Powder Cutting Nozzle 100 - 200 Mm Powder Cutting Nozzle 200 - 300 Mm Powder Distributor Cutting Powder – 10 Kg Suitable Gas pressure Regulators 	

22. Ring Type Heating Torch

- Multi jet Heating Nozzles
- Torch ring equipped with exchangeable Copper nozzles.
- Torch ring closed or hinged to thread the torch ring at any desired point on the pipe.
- Torch ring and mixing tube from steel pipe, chemically Ni plated.
- Maximum Pipe Dia for heating 100 mm
- Number of Nozzles in the Ring Minimum 24
- Outer Ring Dia 270 mm
- Length 680 mm

Application:

- Pre and post heating when welding.
- Annealing of weld seams.
 - Processing of glass.
 - Shrinking and drawing.
 - Preheating for swaging.

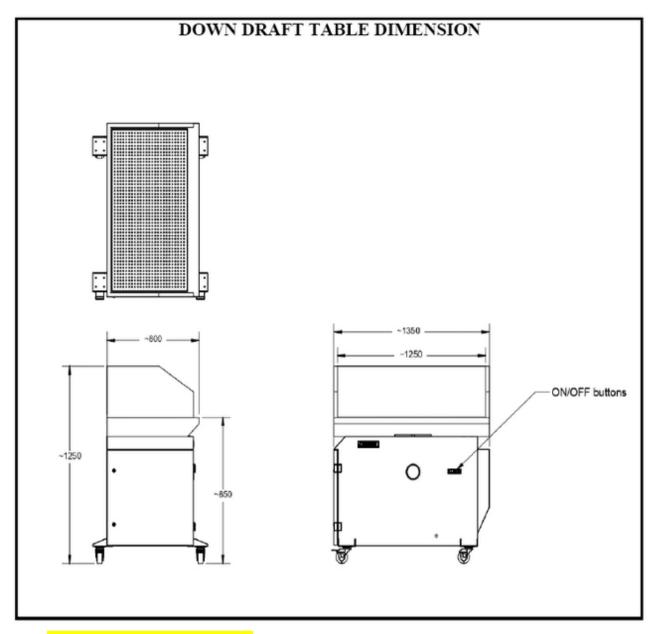
23. Heavy Duty OXY Fuel Cutting Torch

- Fuel Gas Acetylene
- Angled Torch Head
- Length 1260 mm
- Angle of Head 75 Degrees
- Cutting Thickness 50 to 650 mm minimum
- Accessories
 - Torch Carriage
 - Skid Mounting Attachment
 - o Pressure Screw
 - Torch Spanner
 - o Nozzle Cleaner in case
 - Oxygen Hose 11 mm
 - o Fuel Gas Hose 9 mm
 - o Powder Tube complete
 - o Powder Feeding Tube
 - o Powder Nozzle
 - o Cutting Nozzles
 - o Suitable Gas pressure Regulators

24. Downdraft & Backdraft Tables

SL. NO.	ITEM DESCRIPTION		Bidder's Response
1.0	DOWN DRAFT TABLE		
1.1	Suction Capacity (Cmh/Cfm)	1500/880	
1.2	Overall Dimesions (W x Lx H)	Overall-1350 X 800 X 1250 MM	
1.2		Work Grid-1250x800 MM	
1.3	Workbench Height	850mm	
1.4	Weight (Approx)	Less than 170 Kg	
1.5	Motor Power	3 Hp	
1.6	Motor Speed	2840 Rpm	

1.7	Power Supply	3 Phase /50hz, 430v Ac	
1.8	Rated Current	3.6 A	
1.9	Noise Level	Less Than 85 Db	
1.10	Static Pressure	150 Mm WC	
1.11	Operating Temperature	05-80 Deg C	
1.12	Filters	00 00 Deg 0	
1.12.			
1	Type of Filter	Cartridge Filter	
1.12. 2	Filter Surface	21 Sq.M (227 Sq.Ft)	
1.12. 3	Filter Material	Cellulose & Polyester blend with Nano Fibre (Fire Retardant)	
1.12. 4	Filter Cleaning	Automatic Reverse Air Pulse Cleaning	
1.12. 5	Filter Efficiency	99.9 for 0.2 to 2 Microns	
1.13	Compressed Air Pressure	5-6 Bar	
1.14	Electrical Controls	Fully Plc Base Controls With Auto Clean & Filter Choke Indicator	
1.15	MOC	Cabinet Fully Made Of Mild Steel 14g	
1.16	Exterior Finish	Powder Coated	
1.17	Three stage spark arresters		
1.18	Integrated Fan		
1.19	Strong back draft (80%) & Down dr	raft (20%) extraction capacity	
1.20	Pull out drawers for easy cleaning		
1.21	The welding area should be guarded in	the front by PVC Strip partitions	
1.21.	Materal	PVC as per IS standard	
1.21. 3	Colour	Red /Orange /as per the floor colour	
1.21. 4	Height	3000 mm	
1.21. 5	Thickness of each strip	0.35 mm	
1.21. 6	Width of each strip	325 mm	
1.21. 7	Overlap between each strip	Minimum 50 mm	
1.21. 8	Steel chain sewn into the hem of each strip for stabilizing		
	ONAL FEATURES	1	
1.22	Fully automatic PLC based filter clean	ing system (Optional Feature)	
1.21. 1	Type (The welding area should be guarded in the front by PVC Strip partitions)	Walk thru type (Optional Feature)	



25. Robotics Welding Table*

Bidder to provide Robotics table as per their system dimension. However, minimum requirement of dimension given below.

L- 1828mm

B-914mm

H- 762mm





*Job Fixing Clamp – 6 Nos. need to be supplied with Robotic Welding table

26. Work Benches with Vice

SL. NO.	ITEM DESCRIPTION	Bidder's Response
1.1	Table Top: minimum 5 mm MS sheet Top	
1.2	Dimensions (mm)– 1500 L X 900 W X 800 H	
1.3	Channel: 50 mm X 50 mm X 5mm Angle	
1.4	Table Bottom Layer: 4mm MS sheet	
1.5	Available with adjustable engineering vice (150 mm) – 2 Nos	
1.5	to be fixed on each table	
1.6	Cabinet / Drawers: Made with minimum 2 mm MS sheet	
1.7	Table should be coated with rust preventive paint.	
1.8	Fitted with pin board and white board	

27. Welding PPE

#	Description	Unit	Qty
1	Welding Hand Gloves	Pairs	20
2	Welding Apron with 2 Pockets	Nos	20
3	Welding Leg Guard	Pair	20
4	Welding Shoulder Guard	Nos.	20
5	Welding Arms / Sleeve Guards	Pair	20
6	Safety Shoes	Pair	20
7	Fire Retarding Jacket	Nos	06
8	Auto Darkening Helmets	Nos	20
9	Welding Hand Shield	Nos	20
10	Safety Googles	Nos	40

28. TOOLS & TACKLES

SL.	ITEM	QTY	UOM
NO.			
1	Cotton Hand Gloves (Dotted)	50	PAIRS
2	Welding Helmet – Fibre	10	NOS
3	AG 4 Grinder	2	NOS
4	AG4 Grinding Wheels	50	NOS
5	AG 4 Cutting Wheel	20	NOS
6	Chisel Cold Flat 19 mm x 150 mm	6	NOS
7	Centre Punch 9 mm X 127 mm	4	NOS
8	Divider 200 mm 15 Nos.	4	NOS
9	Stainless Steel Rule - 300 mm	4	NOS
10	Flat Tongs 350 mm	8	NOS
11	File Half Round Bastard with handle	5	NOS
12	File Flat 350 mm Bastard with Handle	8	NOS
13	Hammer Ball Peen 1 Kg with handle	8	NOS
14	Screw Driver 300 mm Blade	4	NOS
15	Screw Driver 250 mm blade	4	NOS
16	Number punch 6 mm	2	NOS
17	Letter punch 6 mm	2	NOS
18	Magnifying Glass 100 mm dia	4	NOS
19	Universal weld Measuring Guage	2	NOS

20	Spanner D.E 6 mm - 32 mm	2	SET
21	SS Tape 5 m Flexible in case 2 No.	4	NOS
22	Hand Gloves for TIG	10	PAIRS
23	Face Shield & Grinding Goggles	10	NOS
24	Auto Darkening Helmet	10	NOS
25	Welding Hand Shield	10	NOS
26	Tip Cleaner	4	NOS
27	Dye Penetration Testing Kit	10	NOS
28	Cut Off machine	1	NOS
29	Adjustable Spanner 8 INCH	4	NOS
30	Adjustable Spanner 10 INCH	4	NOS
31	Adjustable Spanner 12 INCH	4	NOS
32	Cylinder Key	6	NOS
33	Drilling Machine kit[for 10,000 watts motor size]	1	NOS
34	Hacksaw Frame	8	NOS
35	High Speed steel Power Hacksaw Blade	1	NOS
	(400x32x1.60mm, TPI - 6 TPI - HSS)		
36	High Speed steel Power Hacksaw Blade	2	PACKETS
	(400x32x1.60mm, TPI - 6 TPI – Bi Metal)		
37	High Speed steel Power Hacksaw Blade	2	PACKETS
	(300x12.5x.06mm, TPI - 3 TPI - HSS)		
38	ALLEN KEY SET 1.5 MM TO 10 MM	2	NOS
39	ALLEN KEY 12 MM	1	NOS
40	ALLEN KEY 14 MM	1	NOS
41	ALLEN KEY 17 MM	1	NOS
42	Tongs	10	NOS
43	Cutting Players	4	NOS
44	Nose Players	4	NOS
45	Scriber	10	NOS
46	C-Clamp(100mm)	4	NOS
47	Try Square 6inches	2	NOS
48	Try Square 8 inches	2	NOS
49	Pipe Wrench 25 cm	1	NOS
50	Pipe Wrench 35 cm	1	NOS
51	First Aid Box (Wall mountable)	1	NOS
52	Fire Extinguisher	4	NOS
53	Fire Bucket with Stand	1	NOS
54	Magnmetic Particle Inspection test Kit (complete)	1	NOS
55	Anvil 50 KG WITHOUT STAND	1	NOS
56	Pedestal Grinder	1	No
			•

29. FURNITURE AND TEACHING AIDS

Storage Almirah (Minimum 2 Doors) – 4 Nos.

Almirah made of MS with front glass door for viewing the tools

Powder coated

Provision to hang /place tools inside the almirah

Height – 60' minimum

Instructors Chair & Table – 1 Set

Laptop table – 1 No.

White Board – 1 No.

Laptop – 1 No. with latest configuration

LED TV – 1 No. Screen size – 65"

30. Magnetic Particle Inspection Testing Equipment

Sl. No.	Equipment	Quantity
1	Magnetic AC yoke	1 No.
2	ASTM Pie Gauge	1 No.
3	Residual Magnetism Gauge/ Gauss Gauge	1 No.
4	Magnetic Dry powder	5 Kg
5	Fluorescent Magnetic particle (Aerosol)	24 Nos.
6	Powder Puffer Bulb	2 Nos.
7	Blower	3 Nos.

31. Ultrasonic Testing Equipment

Sl. No.	Equipment	Quantity
1	Ultrasonic Testing Machine	1 No.
2	Normal Probes (5 MHz)	1 No.
3	Angle Probe 450 (5 MHz)	1 No.
4	Angle Probe 600 (5 MHz)	1 No.
5	Angle Probe 700 (5 MHz)	1 No.
6	Reference Test Block	1 No.
7	Minilemo to Minilemo Cables	1 No.
8	Couplant	10 Bottles

32. Die Penetrant Testing Equipment

Sl. No.	Equipment	Quantity
1	Cleaner (aerosol)	48Bottle
2	Penetrant Visible (aerosol)	24Bottle
3	Penetrant Fluorescent	20 L
4	Developer (aerosol)	48Bottle
5	UV Lamp	1 No.

33. Machine Consumables

SL No	Equipment	Quantity		
MIG We	Elding Equipment	50 Nos.		
1	Contact Tip 1.2mm	20 Nos.		
2	Contact Tip Adapter	15 Nos.		
3	Gas Nozzle	50 Nos.		
4	Torch Liner 1.2	08 Nos.		
5	Wire Feeder Feed Rollers	08 Nos.		
6	Wire Guide Tube	10 Nos.		
7	Wire Conduit	04 Nos.		
TIG We	ding Equipment			
1	Ceramic Gas Nozzle No.6	20 Nos.		
2	TIG Torch Collet 2.4 mm	20 Nos.		
3	TIG Torch Collet Body	10 Nos.		
4	Insulating Ring	10 Nos.		
5	Back cap with O-ring	10 Nos.		
6	Torch Body	04 Nos.		
Plasma (Plasma Cutting Machine Equipment			
1	Plasma Cutting Nozzle	75 Nos.		

2	Plasma Cutting Electrode	75 Nos.
3	Plasma Shield Cap	30 Nos.
4	Plasma retainer	10 Nos.
5	Swirl Cap	25 Nos.
SAW Eq	uipment	
1	SAW Nozzle 2.4 mm	20 Nos.
2	SAW Nozzle 3.2 mm	20 Nos.
3	SAW Roller 2.4mm	10 Nos.
4	SAW Roller 3.2mm	10 Nos.

34. Wire and Electrodes

SL No	Description	Specification	Quantity	
Wire and Electrodes- MMA Electrodes				
1	E6010 Electrode	2.5mm x 350mm	10 Kgs	
2	E6010 Electrode	3.15mm x 450mm	10 Kgs	
3	E6010 Electrode	4mm x 450mm	10 Kgs	
4	E6013 Electrode	2.5mm x 350mm	10 Kgs	
5	E6013 Electrode	3.15mm x 450mm	10 Kgs	
6	E6013 Electrode	4mm x 450mm	10 Kgs	
7	E7018 Electrode	2.5mm x 350mm	10 Kgs	
8	E7018 Electrode	3.15mm x 450mm	10 Kgs	
9	E7018 Electrode	4mm x 450mm	10 Kgs	
Wire and Electrodes- MIG Wire				
1	ER70S-6	1.2mm	35 Spools	
2	ER308-L	1.2mm	05 Spools	
3	ER4043	1.2mm	03 Spools	
4	ER5356	1.2mm	02 Spools	
5	E71T-1	1.2mm	10 Spools	
Wire and Electrodes- TIG Electrode and Rods				
1	EWCe-2 Tungsten Electrode	2.4mm x 175mm	480 Nos.	
2	ER70S-2	2.5 mm X 1000mm	50 Kgs	
3	ER308-L	2.5 mm X 1000mm	25 Kgs	
4	ER4043	2.5 mm X 1000mm	10 Kgs	
5	ER5356	2.5 mm X 1000mm	08 Kgs	
Wire and Electrodes- SAW Wire and Flux				
1	Flux F7A2-EM12		55 Kg	
2	Electrode Wire F7A2-EM12	2.4 mm	50 Kg	

NOTE: MS & SS and Non-Ferrous electrodes and wires should be in supply of scope of the selected bidder during hand-holding period.

^{**} Important note: The bidder must provide exact and relevant input against the specified features having "numerical values" or "% values" or any "specific requirement" in the same format as specified in the tender document under bidder's specification column. Any response specifying Confirmed / Agreed / Complied etc. under bidder's specification column shall be summarily rejected.

^{***}COMPLIANCE STATEMENT WITH RESPECT TO THE TECHNICAL SPECIFICATIONS MENTIONED ABOVE SHOULD BE PROVIDED BY INDICATING THE BROCHURE PAGE NUMBER /PARA NUMBER/LINE NOS FOR EACH SPECIFICATION WITHOUT FAIL.

Specifications of other equipment

1) Flash Back Arrestor Torch side

- Dry type with Filter, non return valve & flame arrestor
- Suitable for Inlet pressure of Oxygen :20 bars, Acetylene:1.5 bars, Hydrogen:3.5 bars, LPG:5.0 bars
- Every unit should necessarily meet certificate no. BAM/ZBA/007/03 by the safety body BAM.
- Connection: as per BSP standards
- The flashback arrestors should comply with ISO5175, EN730, BS6158
- Should be BAM certified
- The manufacturer should have ISO-9001 accreditation for manufacturing
- Gas flow direction to be engraved on each Flash back arrestor
- The working manual to be enclosed in each packing.
- Supplier should have equipment for testing of flashback arrestors
- Sample with all test certificates to be submitted along with offer

2) Flash Back Arrestor Regulator side

- Dry type with Filter, non return valve & flame arrestor
- Suitable for Inlet pressure of Oxygen :20 bars, Acetylene:1.5 bars, Hydrogen:3.5 bars, LPG:5.0 bars
- Every unit should necessarily meet certificate no. BAM/ZBA/007/03 by the safety body BAM.
- Connection: as per BSP standards
- The flashback arrestors should comply with ISO5175, EN730, BS6158
- Should be BAM certified
- The manufacturer should have ISO-9001 accreditation for manufacturing
- Gas flow direction to be engraved on each Flash back arrestor
- The working manual to be enclosed in each packing.
- Supplier should have equipment for testing of flashback arrestors
- Sample with all test certificates to be submitted along with offer

3) SINGLE STAGE OXYGEN REGULATOR

Standard: BSP

Inlet pressure 230 bar / 335 psi
Outelt Pressure: 10 bar / 145 psi
SS sintered Central Micro Filter

Sintered inlet filter

Manufactured under the quality management system of EN ISO 9001

Designed in accordance to the most internationally recognized standards EN ISO, BSP, CGA, NFE and AS

4) SINGLE STAGE ACETYLENE REGULATOR

Standard: BSP

Inlet pressure 230 bar / 335 psi
Outelt Pressure: 10 bar / 145 psi
SS sintered Central Micro Filter

- Sintered inlet filter
- Manufactured under the quality management system of EN ISO 9001
- Designed in accordance to the most internationally recognized standards EN ISO, BSP, CGA, NFE and AS

Bidder should provide at least 2 Glow Sign Board (10ftX4ft) at each CoE

OPTIONALFEATURES** (Highlighted in "Yellow Colour")

The meaning of optional features:-

The word optional represents the machine capability to comply those features either by adding hardware or software in future. The bidders can offer their standard machines. However, bidders need to give a declaration regarding the compatibility of their equipment/systems with all optional items mentioned in the technical specification. Bidders are allowed to mention the price of equipment and optional items separately.

9. Instruction to the Bidders

a. General Conditions

- a. All information supplied by bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by DTE&T, Odisha on the basis of this RFP.
- b. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed between DTE&T and the selected bidder. Any notification of preferred Bidder status by DTE&T shall not give rise to any enforceable rights by the Bidder. DTE&T may cancel the process at any time prior to a formal written contract being executed by DTE&T or post unsatisfactory of pre-delivery & post-delivery inspections (PDI).
- c. This RFP supersedes and replaces any previous public documentation & communications done in this regard, and Bidders should place no reliance on such communications.

b. Compliance / Completeness of Response

- a. Bidders are advised to study all instructions, forms, terms, requirements, appendices and other information in the RFP documents carefully. Submission of the Proposal shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.
- b. Failure to comply with the requirements of this paragraph may render the Proposal non-compliant and the Proposal may be rejected. Bidders must:
 - i. Comply with all requirements as set out within this RFP.
 - ii. Submit the forms duly signed as specified in this RFP and respond to each element in the order as set out in this RFP.
 - iii. Include all supporting documentations duly attested by authorized person as specified in this RFP.
- c. The Proposals must be complete in all respects, Indexed and Hard Bound. The page numbers must be clearly marked on each page and cross reference be indicated on the Index Page.

c. Bidder Clarifications (Pre-Bid Discussion):

i. Queries to the RFP

- a. DTE&T, Odisha invites queries from Bidders on any section/ requirement mentioned in this RFP.
- b. The Bidders will have to ensure that their queries should reach DTE&T, Odisha, as per the communication address provided on or before the specified date for Pre-Bid Discussion. The queries should either be sent to the specified e-mail or through authorized representative of the Bidder. The queries should necessarily be submitted in the following format:

Section/Page No.	Content of RFP requiring clarifications	Change/Clarification requested	Remarks

ii. Responses to Queries and Issue of Corrigendum

- a. The queries submitted by the Bidders will be responded through a pre-bid meeting at DTE&T office as per the schedule mentioned in the Fact Sheet of this RFP document with only one representative from every interested bidder can participate in the pre-bid meeting.
- b. The purpose of Pre-Bid discussion is to provide the Bidders with information regarding the RFP, project requirements, and opportunity to seek clarification regarding any aspect of the RFP and the project. However, DTE&T, Odisha, reserves the right to hold or to reschedule the Pre-Bid meeting.
- c. DTE&T, Odisha shall not be responsible for ensuring that the Bidder's queries have been received by them. Any requests for clarifications received after Pre-Bid meeting will not be entertained.
- d. However, DTE&T, Odisha makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does it undertake to answer all the queries that have been submitted by the Bidders
- e. DTE&T at any time prior to the last date for receipts of Proposals, may for any reason, modify the RFP Document by a corrigendum.
- f. The Corrigendum/Addendum (if any) will be uploaded at DTE&T website (www.dtetodisha.gov.in).
- g. Any such corrigendum shall be deemed to be incorporated into this RFP and binding on all Bidders.

d. Key Requirements of the Bid

i. Rights to terminate the process

- a. DTE&T, Odisha may terminate the RFP process at any time and without assigning any reason. DTE&T, Odisha makes no commitments, express or implied, that this process will result in a business transaction with anyone.
- b. This RFP does not constitute an offer by DTE&T, Odisha. The Bidders' participation in this process may result in engaging the Bidder towards execution of the Contract.
- c. Any document, information, data or statement submitted by the Bidder in its Proposals, based on which the selected Bidder was considered eligible or successful, is found to be false, incorrect or misleading.

ii. Bid Processing Fee

Bidders must submit, along with their Proposals, non-refundable Bid Processing Fee of INR 20,000/-(Rupees Twenty Thousand Only), in the form of a Demand Draft issued in favour of DTE&T, Odisha payable at Cuttack.

iii. Earnest Money Deposit

- a. Bidders shall submit, along with their Proposals, EMD of INR 10,00,000/- (Rupees Ten Lakhs Only), in the form of a Bank Guarantee issued in favour of DTE&T, Odisha payable at Cuttack, and should be valid for 225 Days from the due date of the RFP.
- b. EMD of all unsuccessful Bidders would be refunded within 30 Days of the Bidder being notified as being unsuccessful. The EMD, for the amount mentioned above, of the successful Bidder would be returned within 60 Days, only after submission of Performance Bank Guarantee.

- c. EMD amount is interest free and will be refundable to the unsuccessful Bidder without any accrued interest on it.
- d. The Proposal submitted without Bid Processing Fee & EMD, mentioned above, will be summarily rejected.
- e. The EMD may be forfeited:
 - i. If a Bidder withdraws its Proposal during the period of validity.
 - ii. In case of a successful Bidder, if the Bidder fails to sign the Contract in accordance with this RFP.

iv. Submission of Responses

- a. Pre-qualification Criteria, mandatory documents and Bid Processing Fee (in a separate sealedenvelope)
- b. Technical Proposal (in sealed envelope containing)
 - i. Earnest Money Deposit (in a separate sealed envelope)
 - ii. Technical Proposal (in a separate sealed envelope)
- c. Financial Proposal (in sealed envelope containing)
 - i. Cover Letter
 - ii. Financial Proposal

v. Authentication of Proposals

The Proposal should be authorized by the authorized signatory of the company. The Proposal shall be sent by Registered Post/Speed Post/Courier only. It is desirable but not mandatory that companies send their one representative during the opening of the bids and for technical presentation.

e. Preparation and Submission of Proposal

Proposal Preparation Costs

The Bidder shall be responsible for all costs incurred in connection with participation of the RFP process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/ discussions/ presentations, preparation of Proposal, in providing any additional information required by to facilitate the evaluation process, and in negotiating a definitive Contract or all such activities related to the process.

DTE&T will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the process.

Bidders are advised to visit the institutes before preparation and submission of their proposals.

i. Language

The Proposal should be filled by the Bidders in English language only. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Bidders. For purposes of interpretation of the documents, the English translation shall govern.

ii. Late Proposals

a. Original hard copy of the RFP document, fees and EMD received after the due date and the

specified time (including the extended period if any) for any reason whatsoever, shall not be entertained and shall be returned unopened.

- b. The Proposals must be submitted through Speed Post/Registered Post/Courier/By Hand (in persons). But, proposals submitted by telex/ telegram/ fax/ e-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- c. DTE&T, Odisha shall not be responsible for any postal delay or non-receipt/ non-delivery of the documents. No further correspondence on the subject will be entertained.
- d. DTE&T, Odisha reserves the right to modify and amend any of the above-stipulated condition/criterion depending upon project priorities vis-à-vis urgent commitments.

f. Evaluation Process

- a. The DTE&T reserves the right to reject any or all Proposals on the basis of any deviations.
- b. Each of the responses shall be evaluated as per the criterions and requirement specified in this RFP under the 'Evaluation and Selection' section.

i. Tender Opening

The Proposals submitted within due date and time mentioned in this RFP document will be opened by DTE&T, in the presence of the Bidders or their authorized representatives who may be present at the time of opening. The representatives of the Bidders should submit a letter of authorization from the Bidder companies to participate in the opening of the Proposal.

ii. Proposal Validity

The offer submitted by the Bidders shall be valid for a minimum period of 180 days from the date of submission of Proposal.

iii. Proposal Evaluation

Proposal evaluation and Selection will be carried out as per the specifications mentioned in the Section on 'Evaluation and Selection'.

g. Proposal Forms

Wherever a specific form is prescribed in this Request for Proposal (RFP) document, the Bidder shall use the form to provide relevant information. If the form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the required information. For all other cases, the Bidder shall design a form to hold the required information. The additional sheets attached should be properly annexed.

h. Local Conditions

- a. Each Bidder is expected to become fully acquainted with the local conditions and factors, which may affect the performance of the Contract and/ or the cost.
- b. The Bidder is expected to know all conditions and factors, which may have any effect on the execution of the Contract after issue of letter of Award. The DTE&T, shall not entertain any request for clarification from the Bidder regarding such local conditions.
- c. It is the Bidder's responsibility that such factors have been properly investigated and considered before submitting the Proposal. No claim, whatsoever, including that for financial

adjustment to the Contract awarded under the bidding document will be entertained by DTE&T. Neither any change in the time schedule of the Contract nor any financial adjustments arising thereof shall be permitted by the DTE&T on account of failure of the Bidder to know the local laws/ conditions. The Bidder is expected to visit and examine and study the location of Govt. ITI and its surroundings and obtain all information that may be necessary for preparing the Proposal at its own interest and cost.

i. Contacting DTE&T, Odisha or any of the bodies related to DTE&T, Odisha

Any effort by the Bidder to influence the Proposal evaluation, Proposal comparison or Contract award decisions may result in the rejection of the Proposal.

Bidder shall not approach any DTE&T officer after office hours and/ or outside office premises, from the time of the Proposal opening till the time the Contract is awarded.

j. Tentative Schedule of Events

Tentative schedule of events shall be as per the dates and time given in the Fact Sheet.

k. Opening of Proposal

First, Pre-Qualification of bidders will be checked. Secondly, the Technical cover will be opened and evaluated for the bidders who qualify in the Pre-Qualification Criteria. The Financial Proposal of the technically qualified bidders will only be opened. The Technical Evaluation Committee will open the Proposals. Sequence of opening is as follows:

- a. Pre-Qualification Criteria
- b. Technical Cover
- c. Financial Cover

a. Pre-Delivery Inspection of sample equipment & Post-Delivery Inspection of all equipment

DTE&T will conduct a pre-delivery inspection of sample equipment before the proposed equipment delivered/shipped by the selected bidder/bidders to the CoE and post-delivery inspection of all equipment by its own technical experts or3rdparty agency/consultants/advisors appointed by DTE&T at each CoE.

Bidders failing to comply with any of the clause then the Bid will be summarily rejected. DTE&T reserves the rights to reject the bid any time without citing any reason thereof.

b. Deciding Award of Contract

- a. DTE&T reserves the right to ask for a technical elaboration/clarification in the form of a technical presentation from the Bidder on the already submitted Technical Proposal at any point of time before opening the Financial Proposal by providing at least 3 working days of advance notice.
- b. DTE&T shall inform those Bidders whose Proposals did not meet the requirement or were considered non-responsive, informing that their Financial Proposals will be not opened after completing the selection process. DTE&T shall simultaneously notify those Bidders who technically qualify on the Technical Evaluation process, informing the date and time set for opening of Financial Proposals.
- c. The Bidder's name, the Proposal Price, the total amount of each Proposal and other such

details, will be announced and recorded by the DTE&T at the opening of Proposal.

- d. After acceptance of LoA, Performance Security has to be deposited as specified in this document for signing an Agreement with DTE&T.
- e. Special Condition for Awarding the Agreement:
- i. DTE&T will sign the Agreement with the successful Bidder for a period as mentioned in 'Duration of Contract' in the document.
- ii. DTE&T may extend the Agreement for a time period beyond what has been specified in 'Duration of Contract' in the document.
- iii. DTE&T will also have the right to provide extension/ increase in the scope of work as perthe mutually agreed terms and conditions between both the parties.

c. Confidentiality:

- a. As used herein, the term "Confidential Information" means any information, including information created by or for the other party, whether written or oral, which relates to internal controls, computer or data processing programs, algorithms, electronic data processing applications, routines, subroutines, techniques or systems, or information concerning the business or financial affairs and methods of operation or proposed methods of operation, accounts, transactions, proposed transactions or security procedures of either party or any of its affiliates or any client of either party, except such information which is in the public domain at the time of its disclosure or thereafter enters the public domain other than as a result of a breach of duty on the part of the party receiving such information. It is the express intent of the parties that all the business process and methods used by the Bidder in rendering the Services hereunder are the Confidential Information of the Bidder.
- b. The Bidders shall keep confidential, any information related to this RFP, with the same degree of care as it would treat its own confidential information. The Bidders shall note that the confidential information will be used only for the purposes of this RFP and shall not be disclosed to any third party for any reason whatsoever.
- c At all-time of the performance of the Services, the Bidder shall abide by all applicable security rules, policies, standards, guidelines and procedures. The Bidder should note that before any of its employees or assignees is given access to the Confidential Information, each such employee and assignees shall agree to be bound by the terms contained under this RFP and such rules, policies, standards, guidelines and procedures by its employees or agents.
- d. The obligations of confidentiality under this section shall survive rejection of the Contract.

d. Publicity

Any publicity by the Bidder containing the name of DTE&T should be done only with the explicit written permission from DTE&T.

e. Execution of the Agreement

After acknowledgement of the LoA by the selected Bidder, a performance guarantees amounting to 10% of Total Bid Value has to deposited in the form of FDR/BG of any nationalized/scheduled bank drawn in the name of Director of Technical Education & Training, Odisha, the performance guarantee shall be valid for a period of 44 months from the

date of award of Contract as specified in the RFP document. The selected Bidder shall sign the Agreement within thirty days from the issue of LoA.

Agreement is mutually extendable post the completion of the initial term.

i. Performance Guarantee

The successful Bidder firm shall furnish the Performance Guarantee as stipulated in the section 'Contract Performance Guarantee' in this document.

f. Duration of Contract

The assignment of the work shall be valid initially for a period of 42 months.

g. Terms and Conditions: Applicable Post Award of Contract

ii. Termination Clause

1. Termination for Default

DTE&T, Odisha may, without prejudice to any other remedy for breach of contract, by a written notice of default of at least 30 days sent to the selected Bidder, terminate the Contract in whole or in part (provided a cure period of not less than 90 days is given to the selected Bidder to rectify the breach):

- a. If the selected Bidder fails to deliver any or all quantities of the equipment or services within the time period specified in the Contract, or any extension thereof granted by; or
- b. If the selected Bidder fails to perform any other obligation under the Contract within the specified period of delivery of service or any extension granted thereof; or
- c. If the selected Bidder, in the judgment of DTE&T, Odisha, is found to be engaged in corrupt, fraudulent, collusive, or coercive practices in competing foror in executing the Contract.
- d. If the selected Bidder commits breach of any condition of the Contract

If DTE&T, Odisha terminates the Contract in whole or in part, the amount of Performance Guarantee shall be forfeited. Notwithstanding anything contrary elsewhere contained in the document, Bidder shall be entitled for all the payments accrued on account of services rendered till the date of such termination.

2. Termination for Insolvency

DTE&T, Odisha, may at any time terminate the Contract by giving a written notice of at least 30 days to the selected Bidder, if the selected Bidder becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the selected Bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to DTE&T, Odisha.

3. Termination for Convenience

a. DTE&T, Odisha by a written notice of at least 30 days sent to the selected Bidder may terminate the Contract, in whole or in part, at any time for its convenience. The Notice of termination shall specify that termination is for DTE&T, Odisha's convenience, the extent to which performance of the selected Bidder under the Contract is terminated, and the date upon

which such termination becomes effective.

- b. In such cases, DTE&T, Odisha will pay for the entire pending invoice as well as the work done till that date by the Bidder.
- c. Depending on merits of the case the selected Bidder may be appropriately compensated on mutually agreed terms for the loss incurred by the Contract if any, due to such termination.
- d. Limitation of Liability: In no event shall either party be liable for consequential, incidental, indirect, or punitive loss, damage or expenses (including lost profits). Notwithstanding anything to contrary elsewhere mentioned in the contract, the selected Bidder shall not be liable to the other here under or in relation here to for more than the value of the fees to be paid (including any amounts invoiced but not yet paid) under this Agreement.

4. Termination by DTE&T, Odisha

- a. The DTE&T, Odisha may, by not less than 30 days written notice of termination to the Bidder, such notice to be given after the occurrence of any of the events, terminate this Agreement if:
- i. The selected Bidder fails to remedy any breach hereof or any failure in the performance of its obligations here under as specified in a notice of suspension, within thirty (30) days of receipt of such notice of suspension or within such further period as the may have subsequently granted in writing;
- ii. The selected Bidder becomes insolvent or bankrupt or enters into any agreement with its creditors for relief of debt or take advantage of any law for the benefit of debtors or goes into liquidation or receivership whether compulsory or voluntary;
- iii. The selected Bidder fails to comply with any final decision reached as a result of the Dispute Resolution mechanism/proceedings.
- iv. The selected Bidder submits to the DTE&T, Odisha a statement which has a material effect on the rights, obligations or interests of DTE&T, Odisha and which the selected Bidder knows to be false.
- b. Any document, information, data or statement submitted by the Bidder in its Proposals, based on which the selected Bidder was considered eligible or successful, is found to be false, incorrect or misleading; or as the result of Force Majeure, the selected Bidder is unable to perform a material portion of the Services for a period of not less than sixty(60)days
- c. If the DTE&T, Odisha would like to terminate the Contract for reasons not attributable to the selected Bidder's performance, they will need to clear all invoices for the Services up to the date of the notice. If the DTE&T, Odisha would like to terminate the Contract for reasons attributable related to the selected Bidder's performance, the DTE&T will give a rectification notice for 3 months to the Bidder in writing with specific observations and instructions.

5. Consequences of Termination

a In the event of termination of the Contract due to any cause whatsoever, [whether consequent to the stipulated term of the Contract or otherwise], DTE&T, Odisha shall be entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective business continuity of the Service(s) which the Bidder shall be obliged to comply with and take all available steps to minimize loss resulting from that termination/breach, and further allow the next successor Bidder to take over the obligations of the rest while Bidder in relation into the execution/continued execution of the scope of the Contract.

- b. Nothing herein shall restrict the right of DTE&T, Odisha to invoke guarantees, securities furnished, enforce the Deed of Indemnity and pursue such other rights and/or remedies that may be available to the under law or otherwise.
- c The termination here of shall not affect any accrued right or liability of either Party nor affect the operation of the provisions of the Contract that are expressly or by implication intended to come into or continue in force on or after such termination.

iii. Delay Charges

- a. Notwithstanding the right of DTE&T, Odisha to cancel the order, Delay Charges for late delivery at 1% (One percent) of the undelivered portion of order value per month will be charged for every month's delay in the specified delivery schedule subject to a maximum of 10% of the value of the contract. Delay Charges should be recouped from Performance Guarantee. No Damage will be charged in case of circumstances beyond control of the Company.
- b. Please note that the above Delay Charges for delay in delivery and delay in commissioning are independent of each other and shall be levied as the case maybe.
- c. DTE&T, Odisha reserve its right to recover these amounts from Performance Guarantee. DelayCharges will be calculated on per week basis.
- d. The cumulative and aggregate limit of Delay Charges for delay in delivery and Delay Charges for delay in commissioning would be limited to maximum of 10% of the total Bid Value. The aggregate liability of the Company shall in no event exceed the total value of the fee received under this Contract.

iv. Dispute Resolution Mechanism

- a. The DTE&T, Odisha and the selected Bidder shall make every effort to resolve amicably by direct negotiations, any disagreement or dispute, arising between them under supply order.
- b. All claims and disputes arising under or relating to this Agreement are to be settled by binding arbitration in the state of Odisha. An award of arbitration may be confirmed in a court of competent jurisdiction. Arbitration shall be as per Indian Arbitration Act, 1996.
- c. The DTE&T, Odisha may terminate this contract, by giving a written notice of termination of minimum 30days, to the selected Bidder, if the selected Bidder fails to comply with any decision delivered by DTE&T, Odisha.

v. Notices

Notice or other communications given or required to be given under the Contract shall be in writing and shall be e-mailed followed by hand-delivery with acknowledgement thereof, or transmitted by prepaid registered post or courier. Any notice or other communication shall be deemed to have been validly given on date of delivery if hand delivered & if sent by registered post than on expiry of seven days from the date of posting.

vi. Force Majeure

Force Majeure is herein defined as any cause, which is beyond the control of the selected Bidder or DTE&T, Odisha as the case may be which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance of the Contract, such as:

a. Natural phenomenon, including but not limited to floods, droughts, earthquakes and

epidemics.

- b. Acts of any government, including but not limited to war, declared or undeclared priorities, quarantines and embargo.
- c. Terrorist attack, public unrest in work area provided either party shall within 10 days from occurrence of such a cause, notifies the other in writing of such causes.
- d. The selected Bidder or DTE&T, Odisha shall not be liable for delay in performing his/her obligations resulting from any force majeure cause as referred to and/ or defined above.

Force Majeure shall not include any events caused due to acts/ omissions of such Party or result from a breach/contravention of any of the terms of the Contract, Proposal and/or the Request for Proposal (RFP). It shall also not include any default on the part of a party due to its negligence or failure to implement the stipulated/proposed precautions, as were required to be taken under the Contract. The failure or occurrence of a delay in performance of any of the obligations of either party shall constitute a Force Majeure event only where such failure or delay could not have reasonably been foreseen, or where despite the presence of adequate and stipulated safeguards the failure to perform obligations has occurred. In such an event, the affected party shall inform the other party in writing within five days of the occurrence of such event. The DTE&T, Odisha will make the payments due for Services rendered till the occurrence of Force Majeure. However, any failure or lapse on the part of the Selected Bidder in performing any obligation as is necessary and proper, to negate the damage due to projected force majeure events or to mitigate the damage that may be caused due to the above mentioned events or the failure to provide adequate disaster management/ recovery or any failure in setting up a contingency mechanism would not constitute force majeure, as set out above.

In case of a Force Majeure, all Parties will endeavor to agree on an alternate mode of performance in order to ensure the continuity of Service and implementation of the obligations of a party under the Contract and to minimize any adverse consequences of Force Majeure.

In case, Force Majeure hindrances the validity, performance guarantee and project duration should be extended accordingly as desired by Govt.

vii. Failure to agree with Terms and Conditions of the RFP

Failure of the successful Bidder to agree with the Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event may invoke the PBG of the successful Bidder and award the contract to the next best value Bidder or call for new Proposals from the interested Bidders.

h. Contract Performance Guarantee

- a. Within 21days after the receipt of notification of award of the Contract from, the successful Bidder shall furnish Contract Performance Guarantee to the DTE&T, Odisha which shall be equal to 10% of Total Bid Value and shall be in the form of a Bank Guarantee Bond from any Nationalized Bank/ Scheduled bank in the Performa given here-in-after in this document valid for period of 44 months from the date of award of Contract as specified in the document.
- b. The proceeds of the performance guarantees shall be payable to the DTE&T, Odisha as compensation for any loss/ penalties resulting from the Selected Bidders failure to complete its obligations under the Contract.

c. The performance guarantee will be released by DTE&T, Odisha and returned to the Selected Bidder after 44 months from the date of award of Contract as specified in the document.

i. Statutory Requirements

During the tenure of this Contract, nothing shall be done by the Selected Bidder in contravention of any law, act and/ or rules/ regulations, there under or any amendment thereof governing inter-alia customs, stowaways, foreign exchange etc. and shall keep indemnified in this regard.

j. Contract administration

- a Either party may appoint any individual/Company as its authorized representative through a written notice to the other party. Each Representative shall have the authority to:
- i. Exercise all of the powers and functions of his/ her Party under this Contract, other than the power to amend this Contract and ensure proper administration and performance of the terms hereof; and
- ii. Bind his or her Party in relation to any matter arising out of or in connection with this Contract.
- iii. The Selected Bidder shall be bound by all undertakings and representations made by the authorized representative of the Selected Bidder and any covenants stipulated hereunder, with respect to this Contract, for and on their behalf.
- iv. For the purpose of execution or performance of the obligations under this Contract, the DTE&T, Odisha's, representative would act as an interface with the nominated representative of the Selected Bidder. The Selected Bidder shall comply with any instructions that are given by the representative during the course of this Contract in relation to the performance of its obligations under the terms of the Contract.
- v. A committee comprising of representatives from the DTE&T, Odisha and the Selected Bidder shall meet on a quarterly basis to discuss any issues/ bottlenecks being encountered. The Selected Bidder shall draw the minutes of these meetings and circulate to the DTE&T. Odisha.

k. Right of Monitoring, Inspection and Periodic Audit

The DTE&T, Odisha reserves the right to inspect and monitor/ assess the progress/ performance at any time during the course of the Contract, after providing due notice to the Selected Bidder. DTE&T, Odisha may demand, and upon such demand being made, the selected Bidder shall provide with any document, data, material or any other information required to assess the progress of the project. DTE&T, Odisha shall also have the right to conduct, either itself or through any another consultant/ advisor as it may deem fit, an audit to monitor the performance by the Selected Bidder of its obligations/ functions in accordance with the standards committed to or required by DTE&T, Odisha and the Selected Bidder undertakes to cooperate with and provide to DTE&T, Odisha/ any other Consultant/ Advisor/ Company appointed by DTE&T, Odisha, all documents and other details as may be required by them for this purpose. Any deviations or contravention identified as a result of such audit/ assessment would need to be rectified by the Selected Bidder failing which DTE&T, Odisha may, without prejudice to any other rights that it may have, issue a notice of default.

l. DTE&T, Odisha's Obligations

DTE&T, Odisha shall interface with the Selected Bidder, to provide the required information, clarifications, and to resolve any issues as may arise during the execution of the Contract.

DTE&T, Odisha shall ensure that timely approval is provided to the selected Bidder, where deemed necessary, which should include diagram/ plans and all specifications related to Services required to be provided as part of the Scope of Work.

m. Information Security

The selected Bidder would sign a Non-Disclosure Agreement with the DTE&T, Odisha to ensure information security and confidentiality of processes, information and the various projects and activities taken up during the period of the agreement.

The Selected Bidder shall not carry and/ or transmit any material, information, layouts, diagrams, storage media or any other goods/ material in physical or electronic form, which are proprietary to or owned by DTE&T, Odisha, out of premises, without prior written permission from the DTE&T, Odisha.

The Selected Bidder shall, upon termination of this agreement for any reason, or upon demand by DTE&T, Odisha, whichever is earliest, return any and all information provided to the Selected Bidder, including any copies or reproductions, both hard copy and electronic.

n. Indemnity

The Selected Bidders shall execute and furnish a Deed of Indemnity in favor of the DTE&T, Odisha, in a form and manner acceptable to the, indemnifying from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind how- so-ever suffered including patent, copyright, trademark and trade secret, arising or incurred inter-alia during and after the Contract period out of:

- a. Negligence or wrongful act or omission by the Selected Bidder or its team or any Company/ Third Party in connection with or incidental to this Contract; or
- b. Any breach of any of the terms the Selected Bidder's Proposal as agreed, the Tender and this Contract by the Selected Bidder, its Team or any Company/ Third Party.
 - c. The indemnity shall be to the extent of Total Bid Value.

o. Bid Prices

Bid Price should have equipment wise breakup and including Freight, GST and any other taxes & duties. Bid price should be valid for minimum 180 days from the date of Financial Bid opening.

Prices quoted must be firm and shall not be subject to any upward revision on any account what-so-ever throughout the period of the engagement.

p. Payment Schedule

Payment will be made to the selected company as per the schedule mentioned in **section 10**. "Deliverable and Payment Schedule"

q. Continuance of the Contract:

Notwithstanding the fact that settlement of dispute(s) (if any) may be pending, the parties hereto shall continue to be governed by and perform the work in accordance with the

provisions under the Scope of Work to ensure continuity of operations.

r. Conflict of interest

The Bidder shall disclose to DTE&T, Odisha in writing, all actual and potential conflicts of interest that exist, arise or may arise in the course of performing the Service(s) as soon as practical after it becomes aware of that conflict.

s. Severance

In the event any provision of the Contract is held to be invalid or unenforceable under the applicable law, the remaining provisions of this Contract shall remain in full force and effect.

t. Governing Language

The Agreement shall be written in English language. Subject to below Clause, such language versions of the Agreement shall govern its interpretation. All correspondence and other documents pertaining to the Contract that are exchanged by parties shall be written in English language only.

u. "No Claim "Certificate

The Selected Bidder shall not be entitled to make any claim, whatsoever against, under or by virtue of or arising out of, the Contract, nor shall entertain or consider any such claim, if made by the Selected Bidder after it has signed a "No claim" certificate in favor of DTE&T, Odisha in such form as shall be required by it after the work is finally accepted.

v. Publicity

The Selected Bidder shall not make or permit be made a public announcement or media release about any aspect of this Contract unless DTE&T, Odisha first gives its written consent to the selected Bidder.

w. General

viii. Relationship between the Parties

Nothing in the Contract constitutes any fiduciary relationship between the DTE&T, Odisha, and Selected Bidder/Bidder's Team or any relationship of employer/employee, principal and agent, or partnership, between DTE&T, Odisha and Selected Bidder.

No Party has any authority to bind the other Party in any manner whatsoever except as agreed under the terms of the Contract.

DTE&T, Odisha will not be under any obligation to the Implementing Company's Team except as agreed under the terms of the Contract.

ix. No Assignment

The Selected Bidder shall not transfer any interest, right, benefit or obligation under the Contract without the prior written consent of the DTE&T, Odisha.

x. Survival

The provisions of the clauses of the Contract in relation to documents, data, processes, property, Intellectual Property Rights, indemnity, publicity and confidentiality and ownership survive the expiry or termination of this Contract and in relation to confidentiality, the

obligations continue to apply unless notifies the Selected Bidder of its release from those obligations.

xi. Entire Contract

The terms and conditions laid down in the Request for Proposal (RFP) and all annexure thereto as also the Proposal and any attachments/ annexes thereto shall be read in consonance with and form an integral part of the Contract. The Contract supersedes any prior contract, understanding or representation of the Parties on the subject matter.

xii. Governing Law

This Contract shall be governed in accordance with the laws of India.

xiii. Jurisdiction of Courts

The High Court of Odisha at Cuttack, has exclusive jurisdiction to determine any proceeding in relation to the Contract.

xiv. Compliance with Laws

The Selected Bidder shall comply with the laws in force in India in the course of performing the Contract.

xv. Notices

A "notice" means:

- i. A Notice; or
- ii. A consent, approval or other communication required to be in writing under the Contract.

All notices, requests or consent provided for or permitted to be given under this Contract shall be in writing and shall be deemed effectively given when personally delivered or mailed by prepaid certified/registered mail, return receipt requested, addressed as follows and shall be deemed received within two days after mailing or on the date of delivery if personally delivered:

To,

Director.

Directorate of Technical Education & Training, Odisha,

Killa Maidan, Buxi Bazar, Cuttack 753001

Phone No: 0671-2301061, Fax -0671-2301961

Email: dtetorissa@gmail.com & dtetodisha.procurement@gmail.com

Any Party may change the address to which notices are to be directed, by giving a notice to the other party in the manner specified above. A notice served on a Representative is taken to be notice to that Representative's Party.

xvi. Waiver

Any waiver of any provision of this Contract is ineffective unless it is in writing and signed by the Party waiving its rights.

A waiver by either Party in respect of a breach of a provision of this Contract by the other

Party is not a waiver in respect of any other breach of that or any other provision.

The failure of either Party to enforce at any time any of the provisions of this Contract shall not be interpreted as a waiver of such provision.

xvii. Modification

Any modification of the Contract shall be in writing and signed by an authorized representative of each Party.

xviii. Taxes

The Bidder shall pay service and other applicable taxes, if any, imposed on the Services under this Contract. Any variation to statutory duties/taxes shall be borne by DTE&T.

xix. Application

These General Conditions shall apply to the extent that provisions in other parts of the Contract do not supersede them.

x. Fraud and Corrupt Practices

xx. Fraud and Corrupt Practices

- a. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, DTE&T, Odisha shall reject a Proposal without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") inthe Selection Process. In such an event, DTE&T, Odisha shall, without prejudice to its any other rights or remedies, appropriate the Bid Security or Performance Security, as the case maybe, as mutually agreed genuine pre-estimated compensation and damages payable to DTE&T, Odisha for, inter alia, time, cost and effort of DTE&T, Odisha, in regard to the RFP, including consideration and evaluation of such Bidder's Proposal.
- b. Without prejudice to the rights of DTE&T, Odisha under Clause above and the rights and remedies which DTE&T, Odisha may have under the LoA or the Agreement, if an Bidder, is found by DTE&T, Odisha to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LoA or the execution of the Agreement, such Bidder shall not be eligible to participate in any tender or RFP issued by DTE&T, Odisha during a period of 2(two) years.
- c. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:
- i. "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process
- i. "Fraudulent practice" means a misrepresentation or omission of facts or disclosureof incomplete facts, in order to influence the Selection Process;
- ii. "Coercive practice" means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person's participation or action in the Selection Process:

- iv. "undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or(ii) having a Conflict of Interest; and
- v. "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

Y. Documents/Details to be submitted

The RFP shall be submitted with documents specified below with annexures.

SL.No	Document Description	
1	Proposal Covering Letter as per Annexure I	
2	Financial Proposal Format as per Annexure II	
2	Applicant details as per Annexure III	
3	Relevant document for Proprietorship/Private Limited Company/ Public Limited	
	Company etc. (Self-attested copy of Registration certificates etc. of the firm)	
4	a. Copy of PAN Card (Self-attested)	
	b. GSTIN registrations (Self-attested)	
	c. Self-attested copy of Bank Details	
5	Past Project Experience as per Annexure IV	
6	a. Turnover statement certified by a Chartered Accountant in the format given in Annexure-V	
	b. Audited Financial statements (Balance sheet, Profit & Loss Account/Income &	
	Expenditure Statement, Cash flow statement, Notes on Account) including	
	Income Tax Return with computation statement for the last three consecutive	
	years (2020-21), (2021-22) & (2022-23).	
7	An affidavit for not being blacklisted as per Annexure-VI	
8	Agreement copies to prove experience of CoE setup on Welding	
9	Client Certificate/Project Closure Report for point no. 12 from Eligibility Criteria	
10	All documentary evidence wherever applicable supporting the Eligibility Criteria and Evaluation Matrix	
11	Power of Attorney as per Annexure-VII (Authorizing signatories on stamp paper to sign the bid)	
12	Relevant documents like technical data, Printed literature/ Catalogue, drawings, and	
	other documents, as per the tender requirement.	
13	Qualification Criteria - Compliance	
14	Acceptance of Terms & Conditions Contained in the RFP Documents (Annexure-X)	
15	Annexure-XI (Self-Declaration regarding "Restrictions on procurement from a	
1.0	Bidder of a country which shares a land border with India")	
16	Earnest Money Deposit (EMD) Bank Guarantee as per format given in Annexure-XII	

10.Deliverable and Payment Schedule for the CoE

The selected company will have the following deliverables: -

SL No	Deliverable	Time Line	Amount Payable
1	Milestone 1: i) Pre-Delivery inspection of sample equipment. ii) Delivery of the material, equipment, PPE and Tools &Tacklesfor the CoE. iii) Completion of civil & electrical work (interior design, electrical cabling and infrastructure work etc.)		60% of the Total 'Cost of Goods' & 'Cost of Works' with applicable GST within 30 days of receipt of the invoices.
2	Milestone 2: i)Installation & Commissioning to be completed ii) Inspection and testing of equipment forthe Centre of Excellence and stock entry iii) Submission of safety certificates from competent authorities, supply of Machine Consumables, safety equipment, GAS Cylinders and installation of WeldingBooths etc. Complete setup of the CoEs.	Within 6 month of signing the Contract Agreement (MoA)	40% of the Total 'Cost of Goods' & 'Cost of Works' with applicable GST within 30 days of receipt of the invoices.
3	Milestone 3 - Completion of the Hand holding period Training sessions should commence within 15 days from the completion of complete setup of the Centre of Excellence	Within 20 months of signing the Contract Agreement (MoA)	25% of the Total 'Cost of Service' with applicable GST after completion of every 3 Months hand-holding training & certification. Payment will be made within 30 days from the receipt of the invoices and satisfactory performance reports from Principals of these institutes/CoEs.

Note: *Each schedule of payment will be done after 3^{rd} party inspection for Quality and *value for money.

**Bidder should raise progressive invoice as per the payment terms for i) supply of materials, ii) Installation and commissioning iii) Quarterly handholding charges

* **Value for money should be understood as best price for the quality of equipment and training provided

11. Evaluation and Selection

The bidders who will be eligible by meeting all mandatory eligibility criteria, will be selected for Technical Bid opening. The evaluation criteria will be **Quality cum Cost Based System (QCBS)** with **70:30** where Technical Bid Score will get a weightage of 70% and Commercial Bid Score a weightage of 30%. A bidder has to score minimum 70% in the Technical Bid Evaluation to qualify for the opening of financial bid

a. Technical Evaluation

Initial Bid scrutiny will be made and incomplete details as given below will be treated as non-responsive if Proposals

- i. Are not submitted in as specified in the RFP document
- ii. Are found with suppression of details
- iii. With incomplete information, subjective, conditional offers and partial offers submitted
- iv. Have non-compliance of any of the clauses stipulated in the RFP
- v. Have a lesser validity period

All responsive Bids will be considered for further processing as below.

Technical Evaluation Committee will prepare a list of responsive Bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids will be considered for further evaluation by the Committee according to the evaluation process defined in this RFP document. The decision of the Committee will be final & binding in this regard.

- a. Technical Evaluation committee will examine the bids to determine whether they are complete, eligible, whether any computational errors have been made, and whether the bids are generally in order.
- b. DTE&T, Odisha may conduct clarification meetings with each or any Bidder to discuss any matters, technical or otherwise.
- c. Further the scope of evaluation committee also covers taking any decision with regard to the Tender document, execution/ implementation of the project including management period.
 - d. Proposal document shall be evaluated as per the following steps.
- i. Evaluation of document: A detailed evaluation of the bids shall be carried out by the Technical Evaluation Committee in order to determine whether the Bidders are competent enough and whether the technical aspects are substantially responsive to the requirements set forth in the RFP document. The bidders must submit the Make, Model, Country of origin, Features, and Technical Specifications along with the images of equipment for which they are submitting the bid.
- i. Bidders may propose better technical specifications which may fit for the CoE and fulfill the objective of the project.
- ii. Bidders failing to comply with any of the above then the Bid will be summarily rejected.
- iv. Bidders who scores at least 70% marks in Technical Evaluation criteria set forth in this RFP document will be eligible for opening of their Financial Bid. If a bid does not meet these minimum score, it will be deemed technically non-compliant and will not proceed to the financial evaluation.

Technical Bid Score is calculated as follows: -

 S_T = Technical score X 70/100

Technical Evaluation Criteria

Sl. No.	Evaluation Criteria	Maximum marks	Remarks
1.	 Design of CoE Layout designing of the CoE with proper demarcation of machines – 05 Marks Actual Footprint representation of all the machines. – 05 Marks 	10	
2.	Past Experience		
2.1	The company must have executed the job of Centre of Excellence in welding/welding with thermal cutting technology of value not less than Rs. 1 Crore in a Government Training Institute or engineering college. • 1 to 3 Government/Private Training Institute or engineering college – 10 Marks • 4 to 5 Government/Private Training Institute or engineering college – 15 Marks • More than 5 Government/Private Training Institute or engineering college – 20 Marks	20	
3.	 Quality of equipment/machines SL No. 1 to 12 from List of Equipment (Section No.7) will be given score as 3 Marks each SL No. 13 to 24 from List of Equipment (Section No.7) will be given score as 2 Marks each 	60	
4.	 Course Curriculum Understanding of the requirements of the industries and align the training plan with advanced technology. – 02 Mark Daily Lesson Plan, Weekly Assessment Plan & Final Evaluation, Certification from international bodies. – 03 Marks 	05	
5.	 Profile of Qualified & Experienced Faculties* Provide at least two Qualified and Experienced Faculties for each CoE with minimum Diploma or Graduate Engineer for High End equipment and 5 years of industry experience in relevant field (proof of qualification & certificates of the faculties to be submitted.) – 03 Marks Trainers must be IIW/AWS/IWE/NC3 qualified or from any other International Welding Society. – 02 Marks 	05	

Note: -1- The bidder has to score at least 70% to qualify for the opening of Financial Bid.

2- The scores provided by the Technical Committee, will be considered as final.

*Note 2:-If due to some unforeseen/unavoidable circumstances the above resources cannot be provided or left in between the duration of contract, then they should be replaced with resources having similar credentials and experience.

b. Financial Evaluation

The Bidder shall be selected on the basis of Quality cum Cost Based System (QCBS).

Financial Proposals of only those bidders who qualify in the Technical Proposal evaluation shall

be opened and computed based on the commercial bid submitted by the bidders. If

FDC is the value of commercial bid price quoted in the bid under consideration.

FLDC is the value of lowest commercial Bid among all the technically qualified bidders.

Technical Bid Score (ST) = Technical score X 70/ 100 (70% weightage)

Commercial Bid Score (SF) for each bid shall be computed as follows:

 $SF = 30 \times (FLDC / FDC)$ (30% weightage)

TOTALSCORE

Total Score (Ts) for each qualified bid shall be computed as under:

TS = ST + SF

The Bidder obtaining highest Total Score (TS) value, will be declared as the **Best Evaluated Bid** and **Selected Bidder**.

12 Annexure

Annexure I: Proposal Covering Letter

Date:				
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To.

Directorate of Technical Education & Training, Odisha

Killa Maidan, Buxi Bazar, Cuttack-753001

Phone No-0671(2301061),Fax-0671(2301961)

Email-dtetorissa@gmail.com

Dear Sir,

- 1. All information provided in this Proposal and in the attachments is true and correct to the best of our knowledge and belief.
- 2. We shall make available any additional information if required to verify the correctness of the above statement.
- 3. Certified that the period of validity of Proposal is180days from the last date of submission of Proposal and
- 4. We are quoting for all the services mentioned in the Scope of Work of the RFP.
- 5. We the Bidders are not under a Declaration of Ineligibility for corrupt or fraudulentpractices or blacklisted by any of the Government companies.
- 6. DTE&T, Odisha, may contact the following person for further information regarding this Proposal:
 - A. Name and full address of office, Contact No., Email ID, Company Name
- 7. We are submitting our technical & financial bid documents along with original BG of EMD.

Yours sincerely, Signature

Full name of signatory Designation Name of the Bidder/Company etc.

Annexure II: Financial Proposal Format

To be submitted in original along with the Proposals (Envelope-C)

To,

Directorate of Technical Education & Training, Odisha Killa Maidan, Buxi Bazar, Cuttack-753001 Phone No-0671(2301061), Fax-0671(2301961) Email-DTE&Torissa@gmail.com

Subject: RFP for setup of CoE in advanced welding at ITI Jharsuguda, ITI Anandapur & ITI Kutra under OMBADC districts of Odisha.

Sir,

We, the undersigned, offer to provide the services as Technology Partner for Centre of Excellence setup in advanced welding at ITI Jharsuguda, ITI Anandapur & ITI Kutra under OMBADC districts of Odisha in accordance with your Request for Proposal (RFP) dated [Insert Date] and our Technical Proposal. Our Financial Proposal is as below:

SL No	Particulars	Cost (Rs)	Applicable Taxes (Rs)	Total Cost with applicable taxes (Rs)
A	Cost of Goods (supply of equipment & machineries including delivery, unloading, installation, commissioning charges etc, PPE, tools & tackles, consumables, insurance for thetrainees, safety certificates, fire safety equipments, GAS Cylinders, destructive & non- destructive testing equipment etc.) **The bidder must provide equipment wise cost breakup with this section.			
В	Cost of Works (Design of CoE including interior design with fire retardant, plastic coating painting, design of shop floor with anti skid, electrical insulating, fire retardant with epoxy flooring, required electrical, civil and plumbing works, installation of Welding Booth etc.)			
С	Cost of Services (Preparation of Training Modules, design course curriculum, supply of training materials, conduct hand-holding for 12 months, conduct assessments, awarding certificates etc.)			
	*Total Price offered by the bidder (A+B+C)			

Notes:

- a. *The total price offered by the bidders will be considered during price bid calculation.
- b. The above fee includes Design, Development, Supply, Installation, Testing, Commissioning, Operation and Maintenance of CoE.
- c. The fooding, lodging, travel and other expenses of qualified Engineers/faculties from the technology partner/company and the trainers nominated by DTE&T for training, will be borne by the bidder.
- d. **The bidders must provide equipment wise cost breakup sheet along with above format.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal.

We solemnly affirm that we will strictly adhere to the laws against fraud, corruption and unethical practices, including but not limited to "Prevention of Corruption Act, 1988", during the Request for Proposal (RFP) process and execution of the Contract, in case we are awarded the work. We understand you are not bound to accept any Proposal you receive.

We remain,

Yours

sincerely,

Authorised Signature {In full and initials}:

Name and Title of Signatory:

Annexure III: Applicant Details

<< Declaration to be submitted under the signature of Authorized Representative / Signatory of the applicant agency on Official Letterhead and official seal >>

S. No.	Description	Details	
1	Name of Legal Constitution of Applicant		
2	Status / Constitution of the Firm		
3	Name of Authorized Signatory (Enclose letter of authorization)		
4	Contact address and number		
5	Registration Number		
6	Date of Registration		
7	Place of Registration		
8	PAN Card Number		
9	Primary Single Point of Contact* (For all sort of communication purpose)	Email:	Contact No:
10	0 Secondary Single Point of Contact* Email: Contact		Contact No:

1	N.T	_	4۵	*	
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- 1. All correspondence shall be to the aforesaid email idsonly.
- 2. DTE&T shall entertain communications received from the aforesaid email idsonly.
- 3. DTE&T shall not be liable if the Single point of Contact fails to convey relevant information to their organization /Authorities
- 4. DTE&T shall not entertain requests from the company to re sendEmails.

For and on behalf of:

Signature:

Name:

Designation:

(Authorized Representative and Signatory)

Date:

Note: Please provide copy of Registration Certificate from the appropriate Registering Authority

Annexure IV: Past Project Experience

SL. No	Name of Client, Contact Person, Telephone No, Mobile No, e-Mail, Physical Address	Name of Project	Project Start Date, End Date, Brief of Project	Project Cost	Status (Complete/ In Progress/ Delay)

Note: The information provided in the above table must supported by copies of relevant work order and completion certificate.

Signature of witness	Signature of the Bidder
Date:	Date:
Place:	Place:

Company Seal

Annexure V: Financial Details of Bidder

<< Declaration to be submitted under the signature of Chartered Accountant on Letterhead with his/her dated Sign and Seal >>

TO WHOMSOEVER IT MAY CONCERN

On the basis of audited financial statements, we hereby certify that (Name of Agency) having registered office at (Office address) has an average annual turnover of Rs. ______ in the last three financial years, in the past three consecutive years (FY 2020-21, 2021-22, 2022-23) for CoE. The details of annual turnover are mentioned below:

SL No	Financial Year	Annual Turnover
1	2020-2021	
2	2021-2022	
3	2022-2023	

Note: Audited financial statements for the past three years should be submitted by the Bidder.

Chartered Accountant:

Signature

Name Registration No

Contact No.

Seal

Date:

Place:

Annexure VI: An affidavit for not being black listed

<< An affidavit on a non-judicial stamp paper of INR 10/- by Company Secretary/ Authorized Representative and Signatory of the Applicant with his/her dated Sign and Seal >>

AFFIDAVIT

We, <>, having its registered office at <>, do hereby declare that the Applicant hasn't been blacklisted/
debarred by any State Government/ Central Government authority for breach on our part.
For and on behalf of:
Signature:
M
Name: Designation:
(Authorized Representative and Signatory) Date:
Place:

Annexure VII: Format for Power of Attorney

(Required only if the Signatory is not directly authorized by the Company Board/Governing Body, or Partners.

Otherwise the Board Resolution/Partners Resolution would suffice)

Date:

To,

The Director,

Directorate of Technical Education and Training, Odisha, Cuttack Killa Maidan, Buxi Bazar, Cuttack – 753001.

Dear Sir,

Sub: RFP published by DTE&T to setup CoE in Advanced Welding at Govt. ITI Jharsuguda, ITI Anandapur & ITI Kutra

<Name of the Applicant> hereby authorizes to act as a representative of <> for the following activities vide its Board Resolution (and Power of Attorney if applicable) attached herewith.

To attend all meetings conducted by DTE&T and shall discuss, negotiate, finalize and sign any Proposal or agreement and contract related to RFP.

Yours faithfully,

For

Encl: Board resolution for Authorized signatory

Annexure VIII: Non-Disclosure Agreement Format

NON DISCLOSURE AGREEMENT

This Confidentiality and Non-Disclosure Agreement ("Agreement") dated ("Effective Date") is entered into by and between

DTE&T, ODISHA having its principal place of business at Cuttack (hereinafter referred to as "Client" which expression shall mean and include its parent, affiliates, sister concerns, subsidiaries and assigns),

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1. Purpose

Parties have to disclose certain confidential, technical and business information in order to avail the Services from the Company. To protect the said confidential information both the parties desires to sign this Non-Disclosure agreement.

2. Disclosure of Confidential Information

Either party may disclose to the other party either orally or in any recorded medium, information comprising or relating to its / or its affiliates, parent, sister concerns group companies: techniques; schematics; designs; contracts; financial information; sales and marketing plans; business plans; clients; client data; business affairs; operations; strategies; inventions; methodologies; technologies; employees; subcontractors; pricing; service proposals; methods of operations; procedures; products and/or services ("Confidential Information"). Confidential Information shall include all nonpublic information furnished, disclosed or transmitted regardless of form.

3. Confidentiality

Either Party shall use the Confidential Information solely in furtherance of the actual or potential business relationship between the parties. The parties shall not use the Confidential Information in any way that is directly or indirectly detrimental to the other party or its subsidiaries or affiliates, and shall not disclose the Confidential Information to any unauthorized third party.

Parties shall ensure that access to Confidential Information is granted only to those of its employees or agents ("Representatives") who have a demonstrated need to know such information in order to carry out the business purpose of this Agreement. Prior to disclosing any Confidential Information to such Representatives, party shall inform them of the confidential nature of the information and their obligation to refrain from disclosure of the Confidential Information. Each party and its Representatives will take all reasonable measures to maintain the confidentiality of the Confidential Information, but in no event less than the measures it uses for its own information of similar type. Parties and its Representatives shall not disclose to any person including, without limitation, any corporation, sovereign, partnership, limited liability company, entity or individual (i) the fact that any investigations, discussions or negotiations are taking place concerning the actual or potential business relationship between the parties, (ii) that it has requested or received Confidential Information, or (iii) any of the terms, conditions or any other fact about the actual or potential business relationship.

Each Party and its Representatives will immediately notify the other Party of any use or disclosure of

the Confidential Information that is not authorized by this Agreement. Each Party and its Representatives will use its best efforts to assist the other Party in remedying any such unauthorized use or disclosure of the Confidential Information.

Either Party shall implement and follow the rules as laid down in the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011 ['the Rules'].

Either Party shall monitor the security practices, control processes and checks in place in respect of the Confidential Information on a regular basis and disclose any breaches in the security practices, control processes and checks in place to the other Party.

The obligations contained in this Section 2 will not apply to the extent that either Party can demonstrate that the Confidential Information: (a) was part of the public domain at the time of disclosure or properly became part of the public domain, by publication or otherwise; (b) was rightfully acquired by Receiving Party prior to disclosure by Disclosing Party; (c) was independently developed by Receiving Party or its Representatives without reference to the Confidential Information; or (d) is required to be disclosed by a government company or by a proper court of competent jurisdiction; provided, however, that Receiving Party and its Representatives shall provide Disclosing Party prompt prior written notice of such requirement, shall consult with and assist Disclosing Party in obtaining a protective order prior to such disclosure, and shall only disclose the portion of Confidential Information which it has been advised by written opinion of counsel is legally required to be disclosed and shall use its best efforts to obtain assurance that confidential treatment will be accorded such information if the protective order is not obtained or if Disclosing Party waives disclosure of such information.

4. Ownership of Materials/No Warranty

Each Party retains all rights, title and interest to its Confidential Information. No license under any trademark, patent or copyright, or application for same which are no worth thereafter may be obtained by the other Party is either granted or implied by the disclosure of Confidential Information. Confidential Information is provided "as is" with all faults. In no event shall parties be liable for the accuracy or completeness of the Confidential Information.

5. Term

This Agreement shall terminate two (2) years from the Effective Date. Receiving Party's obligations with respect to confidentiality shall expire after two (2) years from the date of disclosure.

6. Return of Confidential Information

Upon written request of either Party, Parties and its Representatives shall promptly return to the other Party all copies of Confidential Information in its possession including, without limitation, all copies of any analyses, compilations, studies or other documents prepared by Receiving Party or its Representatives containing or reflecting any Confidential Information. Either Party shall certify in writing that it and its Representatives have returned all such information to the other Party.

7. General

- a) This Agreement shall be governed by and construed in accordance with the laws India without regard to its conflicts of law provisions.
- b) Either Party agrees that the breach of the provisions of this Agreement by any Party will cause the other Party an irreparable damage for which recovery of money damages would be inadequate. Either Party will, therefore, be entitled to obtain timely injunctive relief to protect its rights under this Agreement in addition to any and all remedies available at law or in equity. Receiving Party and

its Representatives hereby irrevocably and unconditionally consent to submit to the exclusive jurisdiction of the courts of Cuttack, Odisha for any actions, suits or proceedings arising out of or relating to this Agreement and the transactions contemplated hereby (and agree not to commence any action, suit or proceeding relating thereto except in such courts), and further agree that service of any process, summons, notice or document by registered mail or tracked courier service to the address set for the above shall be effective service of process for any action, suit or proceeding brought against Receiving Party and its Representatives in any such court.

- c) Neither party may assign any of its rights or obligations under this Agreement without the prior written consent of the other party. This Agreement shall be binding upon and inure to the benefit of the parties permitted successors and assigns.
- d) This Agreement may be amended or supplemented only by a writing that is signed by duly authorized representatives of both parties.
- e) No term or provision hereof will be considered waived by either party, and no breach excused by it, unless such waiver or consent is in writing signed an authorized representative of the non-breaching party. No consent to, or waiver of, a breach by a party, whether express or implied, will constitute a consent to, waiver of, or excuse of any other, different, or subsequent breach.
- f) If any part of this Agreement is found invalid or unenforceable, that part will be amended to achieve as nearly as possible the same economic and legal effect as the original provision and the remainder of this Agreement will remain in full force.
- g) This Agreement constitutes the entire agreement between the parties relating to this subject matter and supersedes all prior or simultaneous representations, discussions, negotiations, and agreements, whether written or oral.
- h) This agreement may be executed in two counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same agreement.

Accepted and agreed as of the date first above written by the following authorized Party representatives:

<u>Client</u>	The Company
Ву:	By:
Name:	Name:
Title:	Title:
Witness:	Witness:
Name:	Name:
Title:	Title:

Annexure-IX. Sub-Contracting Clause

The selected bidder cannot outsource or sub-contract the complete work or part of it. Allthe personnel considered should be on the direct payroll of the Company.

Annexure-X: Acceptance of Terms & Conditions Contained in the RFP Documents

To Director of Technical Education and Training, Odisha,	
Killa Maidan, P.O: Buxi Bazar, Cuttack-753001, Odisha	
Sir,	
I have carefully gone through the Terms & Co	
I declare that all the provisions of this Tender Documen further certify that I am an authorized signatory of my company an this declaration.	
Signature of witness	
Date:	Signature of the Bidder
Place:	Date:
	Place:

Company Seal

Annexure XI: Self-Declaration regarding "Restrictions on procurement from a Bidder of a country which shares a land border with India"

(To be submitted on Bidder's Letter Head)

Tender Ref. No.:	Dated:	
To,		
The Director		
Directorate of Technical Education	and Training, Odisha	
KillaMaidan, Buxi Bazaar, Cutta	z- 753001	
Phone No-0671 (2301061); Ema	dtetorissa@gmail.com	
Dear Sir,		
I/We certify that M/s contract any work to a contractor Authority. I also certify that M/s_ countries unless such entity is reg I/We certify that we/our Collabor have/has been registered with the from such countries unless such entity is registered.	against DTE&T Odisha's, I/We have read the Order No: 27945 /F; dat Odisha Finance Department regarding restrictions on procurement from a bid order with India and on sub-contracting to contractors from such countries. (name of Bidder) is not from such a country and will not sub-rom such countries unless such contractor is registered with the Competent will not offer any products/services of entity from such stered with the Competent Authority.	lder
Date :	Seal of Organization & Signatur of Authorized Applicant	

Annexure XII: Bank Guarantee Format for Earnest Money Deposit (EMD)

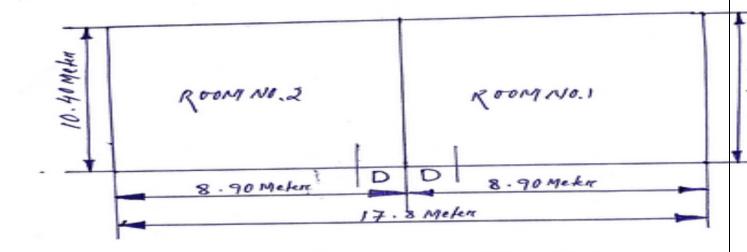
Director of Technical Education and Training, Odisha

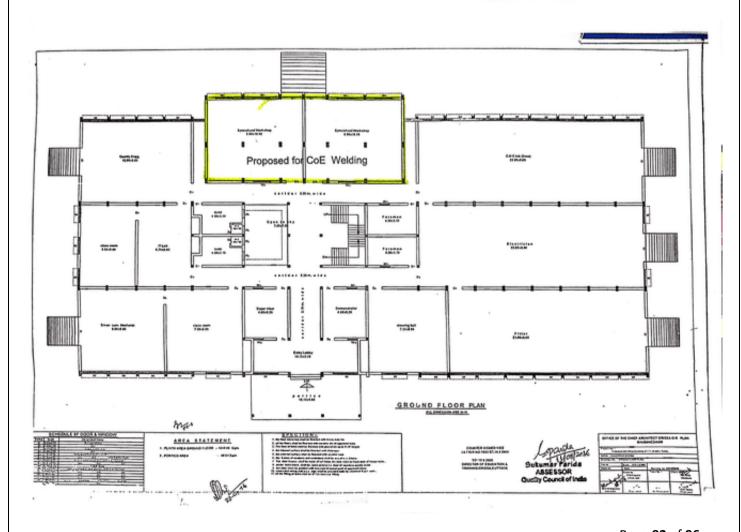
Killa Maidan, Buxi Bazaar, Cuttack- 753001

To,

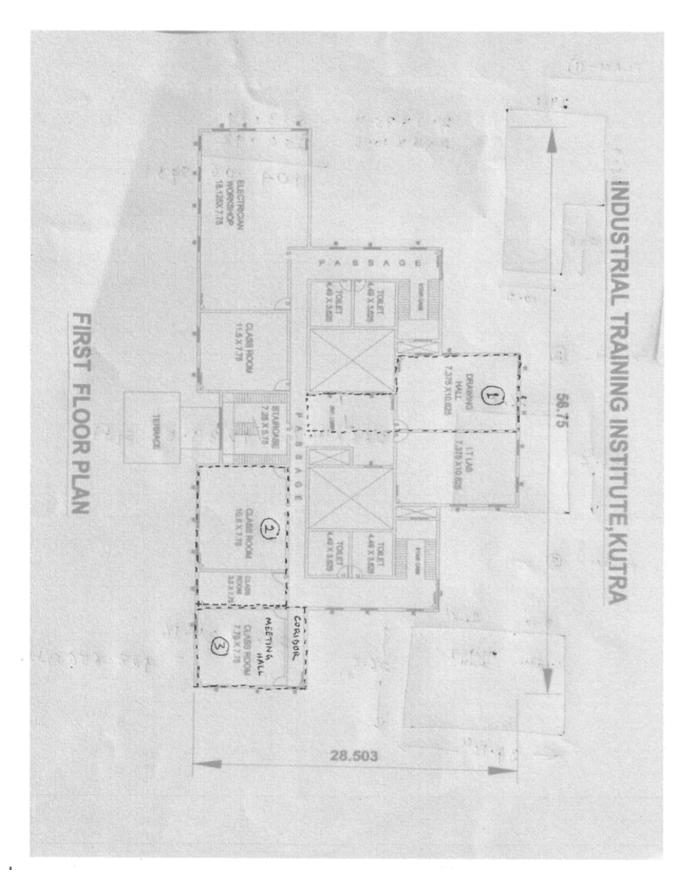
Phone No-0671 (2301061),
Email: dtetorissa@gmail.com
Whereas << name of the bidder >> (hereinafter called "the Bidder") has submitted the bid for submission of RFP # << RFP Number >> dated << insert date >> for << name of the assignment >> (herein called "the Bid") to DTE&T Odisha
KNOW ALL MEN by these presents that we, < <name bank="" issuing="" of="" the="">> having our office at <<address>> (herein called "the Bank") are bound unto(herein called the "Purchaser") in the sum of Rs </address></name>
Sealed with the Common seal of the said Bankday of20 <insert date="">></insert>
The conditions of the obligation are: 1. If the Bidder withdraws or amends, impairs or derogates from the Bid in any respect within the period of
validity of this tender; or 2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of validity of bid: -
a. Withdraws his participation from the bid during the period of validity of bid documents; or b. Fails or refuses to participate for failure to respond in the subsequent Tender process after having been short listed;
c. If the Bidder fails to furnish the Performance Security for the due performance of the contract. d. Fails or refuses to accept/execute the contract.
We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.
This guarantee will remain in force upto and including 45 days after the period of Bid validity and any demand in respect thereof should reach the Bank not later than the above date.
Our
NOTHWITHSTANDING ANYTHING CONTAINED HEREIN: 1. Our liability under this Bank Guarantee shall not exceed Rs. < <amount figure="" in="">> (Rupees <<amount in="" words="">> only)</amount></amount>
 2. This Bank Guarantee shall be valid upto <<insert date="">></insert> 3. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this Bank Guarantee that we receive a valid written claim or demand for payment under this Bank Guarantee on or before <<insert date="">> failing which our liability under the guarantee will automatically cease.</insert>
(Signature of the authorized officer of the Bank)
Name and designation of the officer
Seal, name & address of the Bank and address of the Branch

EXISTING WHIDER TRADE PURPOSE FOR

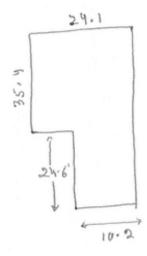




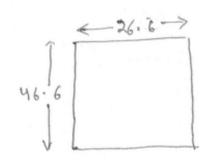
Layout of the available lab for proposed CoE in Govt. ITI Kutra



PLAM-(1)

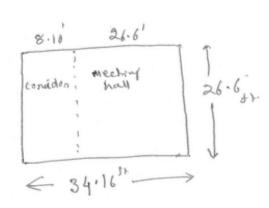


PLAN- (2)



26.6 × 46.6 = 1239.56 Sq.5).

PLAM- 3



Layout of the available lab for proposed CoE in Govt. ITI Anandapur

