

 <u>BHARAT HEAVY ELECTRICAL LIMITED</u> <u>UNIT'S ADDRESS:</u> <u>UNIT'S PHONE NOS.</u> <u>CONTACT PERSON'S NAME/DESIGN./PHONE NO./E-MAIL (FROM PURCHASE DEP'T.)</u>	Enquiry No. : Due Date : Supplier Qtn. No.: Date :				
<u>SPECIFICATION CUM COMPLIANCE CERTIFICATE FOR OXY-ARC ULTRATHERM CUTTING SYSTEM</u>					
NOTE:- 1. Vendor must submit complete information against all clauses. 2. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance. 3. The offer and all documents enclosed with offer should be in English language only.					
ADDRESS OF THE SUPPLIER :	ADDRESS OF THE INDIAN AGENTS :				
TELEPHONE NOS.:	TELEPHONE NOS.:				
FAX NOS.:	FAX NOS.:				
E-MAIL ADDRESS :	E-MAIL ADDRESS :				
SCOPE: Supply and Commissioning of Oxy-Arc Ultratherm cutting System					
Sl. No	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED BY	OFFERED	DEVIATIONS	REMARKS

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1.0	PURPOSE & WORK PIECE MATERIAL				
1.1	Supply of Oxy-Arc Ultratherm cutting System.The offered model should be portable exothermic cutting system,for industrial application,for use in a workshop or in a open yard as a rapid action tool for piercing siezed pins & dismantling metal structures.	Vendor to confirm			
1.2	Scope of Supply: 1)Industrial torch 2) 3/16", 1/4" 3/8" and 1/2" collets 3) striker plate assembly 4) Power cable with two battery clamps 5) Oxygen hose 6) Striker plate assembly 7)Safety Goggles 8)Welding gloves 9)Leather Shield 10) Tool box 11) Sample packets of ultratherm electrodes sufficient for demonstration(see sl no. 9.2). Note:cable and hose length should be around 6 metre .	Vendor to Specify			
1.3	Process Description:The Oxy-Arc Ultratherm cutting System process utilises a consumable exhothemic electrode with an internal bore for oxygen. Electrode is inserted into the cutting torch, which is supplied with oxygen and an ignition source. The ignition system is a 12 Volt DC Battery,cable to Torch, with an associated electrical ground cable attached to the worksite to complete the circuit. Arcing contact between the cutting electrode tip and the workplace in association with oxygen jet flowing through the cutting rod ignites the electrode (5538° Celsius) tip. The electrode being exothermic, will continue to burn as long as the oxygen is supplied or until the rod is consumed.The dc electrical power supply is necessary only for initiating the ignition.	Vendor to confirm			
1.4	Work Piece Material: Structural Steel plates, I-Beams,Channels,Rounds,bars.	Vendor to confirm			
2.0	Technical Data:				
2.1	Oxygen Supply Pressure(Minimum & Maximum)	Vendor to specify			

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2.2	Type,Size & Length of Hose	Vendor to specify			
2.3	Type,Size & Length of Cable	Vendor to specify			
2.4	Battery Rating	Vendor to specify			
3.0	Features of the Equipment :				
3.10	Compliance with relevant Indian/International Standards & Indian statutory Requirements	Vendor to confirm			
3.20	Cutting System should be compatibility to II STAGE OXYGEN REGULATOR (Equivalent to IOX 63),which is widely used at BHEL shop	Vendor to confirm			
4.0	SAFETY ARRANGEMENTS & ENVIRONMENTAL PERFORMANCE OF THE MACHINE ::				
4.1	System/Equipments should have safety features to avoid operational hazards.	Vendor to confirm			
5.0	SPARES:				
5.1	Itemized breakup of spares used on the equipment in sufficient quantity as per recommendation of Vendor for warranty period for trouble free operation should be offered by vendor.	Vendor to confirm			
5.2	Vendor to confirm that complete list of spares for the equipment along with specification / type / model and name & address of the spare supplier shall be furnished along with documentation to be supplied with the equipment.	Vendor to confirm			
6.0	DOCUMENTATION :				

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6.1	Operating manuals of Equipment-3 sets	Vendor to			
6.2	Maintenance manual of the equipment including trouble shooting & maintenance schedule with all drawings of assemblies/sub-assemblies/parts including Electrical wiring diagrams. 3 sets	Vendor to confirm			
6.3	Test & Calibration certificates	Vendor to confirm			
7.0	TRAINING				
7.1	Training of BHEL personal in safe operation, Preventive inspection & Maintenance to be provided	Vendor to confirm			
8.0	COMMISSIONING				
8.1	Supplier to take full responsibility for carrying out the commissioning, start up, testing of the equipment & it's controls etc.	Vendor to confirm			
8.2	Successful proving of BHEL components (Cl. No. 9.2) by the supplier shall be considered as part of commissioning.	Vendor to confirm			
8.3	Charges, duration, terms & conditions for Commissioning should be furnished in detail separately by vendor along with offer.	Vendor to confirm			
9.0	Tests/Activities should be carried out at BHEL works while commissioning the equipment :	Vendor to confirm			
9.1	Training of BHEL personal in safe operation of complete equipment system by the supplier's experts / engineers during their stay at BHEL works .Necessary guidance shall be provided with regard to operational considerations, safety and efficiency, the risk assessment process prior to commencing job and preventative maintenance.	Vendor to confirm			

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9.2	Supplier to demonstrate Piercing(Steel- depth more than 150 mm),Cutting(steel-thickness more than 50 mm) & Gouging operations(steel-thickness more than 50 mm) using the Oxy Arc cutting & sample electrodes supplied by it. 12V DC Battery,Oxygen cylinder,II STAGE OXYGEN REGULATOR (EQ - IOX 63) & Workpieces shall be arranged by BHEL.	Vendor to confirm			
10.0	Packing				
10.1	Equipment shall be packed as per industry standards for shipment/transportation from supplier work to BHEL store .	Vendor to confirm			
11.0	GUARANTEE :	Vendor to confirm			
11.1	Guarantee 24 Months satisfactory operation from the date of acceptance of the Equipment.	Vendor to confirm			
11.2	Service beyond guarantee period	Vendor to confirm			
11.3	Supplier shall be responsible for after sales service of the equipment.	Vendor to confirm			
12.0	GENERAL :				
12.1	Equipment Model No.	Vendor to Specify			
12.3	Size of the equipment (Length, Width, Height) with complete equipment & accessories	Vendor to Specify			
12.5	Total weight of the equipment	Vendor to Specify			
12.6	Vendor to submit , along with offer, a reference list of customers where similar or higher capacity oxy-arc cutting system have been supplied.	Vendor to Specify			

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12.7	Detailed catalogues , sketch/ photographs of the m/c and accessories/ attachments should be submitted with the offer.	Vendor to Specify			
12.8	Vendors shall submit his latest design. In case of any variance with the present Spec., BHEL reserves the right to study & make minor changes.	Vendor to Specify			
13.0	Delivery Time	Vendor to Specify			