

Bid invitation

Information

Description: SUPPLY OF MIG WELDING MACHINE

Bid invitation number: 6300036400

Bid invitation rules

Bid invitation currency: INR

Timezone: INDIA

Submission period: 27.09.2021 15:00:00

Tech Opening date: 27.09.2021 15:30:00

Created On: 02.09.2021 09:34:54

Bid invitation text:

Bid invitation text:

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E-MODE TENDER INVITATIONS FOR SUPPLY OF "MIG WELDING MACHINE" AS PER RFQ. PLEASE DOWNLOAD THE TENDER DOCUMENTS FROM "Notes & attachments folder". UPLOAD DULY FILLED & SIGNED RFQ IN "NOTES & ATTACHMENTS" IN SRM. PRICE SHOULD BE MENTIONED IN 'PRICE CONDITIONS ONLY'. GENERAL TERMS & CONDITIONS:

1. Indicate item wise HSN code (Harmonized System of Nomenclature) for the materials of this bid invitation.
2. Indicate Basic price and Goods & Services Taxes (GST) separately.
3. Bidders should ensure that they have uploaded their GST details on BEML website.
4. Bidders have to mention their GST registration number in bid.
5. BEML standard terms and conditions apply as per the attachment. Any offer / quotation submission after the closing hours of the due date is not possible.
6. L-1 firm will be finalized based on the competitive price of the technically qualified firms.
7. Payment Terms: a. As per tender
b. Offers insisting for advance payment / against proforma will be not Consider for evaluation.
8. BEML is not obligated to contract for any of the products / services described in the RFQ. BEML reserves the rights to: I. Accept or reject any or all proposals ii. Modify or cancel the RFQ
9. The RFQ is not an offer or a contract.
10. Proposals become BEML's property.
11. Bidders will not be compensated or reimbursed for costs incurred in preparing proposals.
12. Packing Clause: : Item should be packed preferably using Eco -friendly packing material.

Attachments:

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ANNEXURE

RFQ

PERFORMANCE CERTIFICATE

Digital Signature

Bid invitation details

Item	Product Price Condition	Description	Vendor product number	Delivery date/ performance period	Quantity
1	BEMLPA1403	MIG WELDING MACHINE 500A IGBT BASED		17.11.2021 00:00:00	13 NO

Material Specification Text:

TECHNICAL SPECIFICATION - SECTION I IGBT based Inverter controlled Synergic Welding Machine for MIG/MAG welding with Digital Control (500 A, 60% duty cycle) SI.No DESCRIPTION 1 IGBT based Inverter controlled Synergic Welding Set for MIG/MAG welding with Digital Control (500 Amps) (Qty = 13 Nos) SI.No Specification Requirement 1 Item Description: IGBT based Inverter controlled Synergic Welding Set for MIG/MAG welding with Digital Control (500 Amps) 1.1 Quantity to be supplied 13 Nos 2 MIG Welding machine [General requirements] 2.1 Make BIDDER/ VENDOR shall specify 2.2 Model BIDDER/ VENDOR shall specify 2.3 Type Power source shall be IGBT based Inverter controlled Synergic Welding Power Source for MIG/MAG welding with Digital Control, Constant Potential type, with a fluctuation of $\pm 10\%$ in the Input Voltage. Power source should have CC/CV Characteristics. 2.4 Input Power Supply 3 Phase AC 415 V $\pm 10\%$, 50 Hz $\pm 2\%$, through a 3 Wire System (4th wire for Earthing) 2.5 Output DC current suitable for CO₂, ARC, Argon Gas Welding (MIG/ MAG/ MMAW / FCAW/ GOUGING) 2.6 Welding Current Range 20A - 500 Amps 2.7 Insulation CLASS "H" 2.8 Machine Protection IP 23 2.9 Duty Cycle 500 Amps @ 60% Duty cycle (min) 400 Amps @ 100% Duty Cycle (min) 2.10 OCV Less than 80V . BIDDER to mention the Open Circuit Voltage for the offered Power source 2.11 Current Setting The variation in the set value of the Welding current from the actual Value, should not exceed 1% 2.12 Suitable for I. MMAW/ Semi-automatic FCAW / MIG/ MAG welding process using flux-cored and solid wires of carbon steel, low-alloy steel, stainless steel and Aluminium. II. Welding in all positions with pure argon, carbon-dioxide, argon plus carbon Di-oxide gas mixture, Argon plus oxygen gas mixture as shielding gas and also for welding with self-shielded flux-cored wires. III. Pulsed MIG/MAG & Synergic MIG Welding. 2.13 Thickness of Plate to be welded 1.6 mm sheet to 32mm (MS Plates) 2.14 Material to be welded Stainless Steel / MS / Aluminium 2.15 Digital Control/ Interface Microprocessor based digital control / display / setting features. Power source/ Wirefeeder shall have digital interface to connect externally for software upgradation/ User program loading/ Automation control. 2.16 IGBT Make used IGBTs used in the welding power source shall be of HITACHI, JAPAN/ DYNEX, U.K/ FUJI, JAPAN/ IXYS, USA/ POWEREX, USA/ MITSUBISHI, JAPAN/ TOSHIBA, JAPAN / INFINEON, GERMANY/ SEMIKRON, GERMANY / EWM, GERMANY make only. The manufacturer's test certificate for the IGBTs used in the power sources shall be provided along with the equipment. 2.17 Input Power Cable 15 Mtr Long suitable sized 4 core PVC Insulated Input power cable with Industrial type Metal clad Power

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plug.2.18		Return Current Cable 10 Mtr length 70SQMM HOFR welding cable with DIN Connector (power source end) and screw type heavy duty brass Earth clamp on other end shall be provided with machine			2.19
		MMA Welding Cable 10 Mtrs Length 70 SqMM HOFR welding cable with DIN Connector (power source end) . Fully Insulated Arc Electrode Holder shall be provided with machine			2.20
		Inter Connecting cable length 10 Mtr long 70mm ² Power & Control cables and gas hose assembly with plug-in and quick- fix end connectors to connect the power source and the wire # feeder			2.21
		Voltmeter & Ammeter Welding Current & Voltage shall be displayed on the front panel of Power Source or Wire Feeder. Calibration procedure: The firm shall give the calibration procedure for the Voltmeter & Ammeter during the supply of the machine.			2.22
		Auxiliary Power for Wire-Feeder Unit Low voltage auxiliary power tapping point in the Power source			2.23
		Gas-Heater for CO ₂ - Shielding Gas Provision of one Single Phase AC tapping point in the Power source, for the gas pre heater input power supply [230 V # AC Supply]			2.24
		Arc Strike (F.A.S) Instantaneous Arc Striking facility (Fresh Arc Strike)			2.25
		Gas Flow setting Gas flow Check Push Button for Gas Solenoid Valve actuation, when the weld switch is in "OFF" position			2.26
		Compulsory Features a) Gas/ Wire Inching Facility b) Spatter Control Facility c) Gas Pre-flow/ Post flow Facility d) Crater Control & Fill e) ARC voltage Feedback for voltage compensation			2.27
		Machine Cooling The Power source shall feature a forced air cooling system that ensures adequate cooling of the components while preventing dust and metal particles from being drawn in.			2.28
		Warning Indicators / Error diagnostic function Built in Fault indicators / Error codes for fault detection / Maintenance for faults like under-voltage, overvoltage, over-temperature etc			2.29
		Error diagnostic function Error code display for maintenance purposes			2.3
		Portability Under Carriage/Trolley with hard rubber lined wheels for easy portability and bottle rack for holding one Argon/CO ₂ Cylinder with lashing to prevent toppling of cylinder shall be provided with Welding machine.			2.31
		Weight of machine Bidder to specify the Weight of single power source			2.33
		Power source standard All Welding equipments should meet IEC/EN 60974			2.34
		Power Rating BIDDER to indicate the Maximum Power Rating [kVA] of the Power source and the NO-LOAD Power Consumption in Watts			3
		Wire Feeder Unit: 3.01 Rated Current 500A @ 60% duty cycle			3.02
		Connecting Voltage Vendor to specify			3.03
		Burn-Back Control Compulsorily to be provided			3.04
		Weld Wire dimensions: 0.8mm to 1.6mm			3.05
		Drive Rollers size Drive rollers shall be suitable for weld wires 0.8mm to 1.6mm. All Rollers & Gears in the wire drive unit should be of Metal (Plastic Rollers & Gears are not acceptable). Machine shall supply with set of 1.2mm drive rollers suitable for MS weld wire.			3.06
		Wire feed speed range 1 to 25 M/min (Appox)			3.07
		Wire reel dimension 300 mm			3.08
		Current Control Step less Variation of Welding Current			3.09
		2/4 Track Facility 2/4 Track facility to be provided			3.10
		Inter-connecting cables/hoses assembly 10 Mtrs long power & control cables and gas hose assembly with plug-in and quick-fix end connectors to connect the power source and the wire-feeder. The Interconnecting Cables & Gas Hoses shall be provided with Sleeves for protection and shall have provision to prevent any pulling load on the cables or hoses.			3.11
		Welding Torch Feeder unit shall be compatible with Euro connector type Welding torches with 3M and 4.5 Length (without the use of additional push or pull device). Machine shall be supplied with 3-meter MIG Welding torch with Euro connector.			3.12
		Wire Spool mounting facility Facility to hold wire spools of weight 12.5Kg to 18 Kg			3.13
		Wire Feeder Bidder to specify the Weight of single power source. The Wire Feeder unit shall be of enclosed cabinet type with openable door to access the wire bobbin.			3.14
		Predefined weld programs Wire feeder shall have minimum 50 Nos of Built in predefined synergic weld programs for different kind of materials, wire thickness and shield gas.			3.15
		Welding parameter memory			

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		<p>Machine shall have memory capacity to store and recall minimum 50 user defined weld programs.3.16 External interface Wire feeder shall have provision to load setting/ parameters / update program released time to time.3.17 Digital display Digital display with controls to display weld parameters, select desired weld parameter and show error codes.4 Standard Accessories4.1 Tool Kit for operation and maintenance consisting of :a) Weld Wire Cutterb) Spanner for changing tip, tip holder and brass adapterc) Adjustable Spanner 12" All the above items (a to c) - One set per machine4.2 Shielding Gas Connector to Wire Feeder -Quick Release Type4.3 Each machine Should be supplied with the following:a) CO2 Pre-Heater & Regulatorb) Argon Regulatorc) Gas Flow Meterd) Connectors (Nipples) All the above (a to d) - One set per machine5 Consumables to be supplied along with machines Firm should provide following additional consumable supplied with the machine.a) Welding tip 1.2 mm -480 Nosb) Welding tip 1.6mm # 60 Nosc) Welding tip adaptor-72 Nosd) Gas Nozzle - 72 Nose) Liner 1.2 mm- 60 Nosf) Liner 1.6 mm # 12 Nosg) Spare Torch # 4 Nosh) 1.0mm SS Wire driver rollers-8 nosi) 1.2mm MS Wire driver rollers -16 Nosj) 1.6mm Wire drive rollers for flux core wire- 16 Nos All the above (a to j) # for 13 Machines6 Warranty: The supplier shall provide warranty of 3 year for the complete equipment. Preventive maintenance should be carried out in every 4 months during warranty Period. During warranty period, in case of breakdown the machine should be repaired and made operational within maximum of 5 days. If the Machine is not repaired within 5 days of Intimation of Breakdown, then Warranty Period shall be extended by the twice the No. of days of Breakdown7 Commissioning: Commissioning and performance prove out of the offered equipment at BEML works, by the supplier's representative.8 Performance prove out at BEML worksa) Welding Trials are to be taken on material given by BEML at site.b) BEML will provide necessary jobs and filler wires for MIG/MAG.9 Training The Supplier's SERVICE ENGINEER shall give training in the Operation and Maintenance (mainly on electric/electronic troubleshooting) of the Machine for BEML Staff, during commissioning of the Welding Machines.10 Pre despatch inspection: The welding machines shall be offered for inspection by BEML at supplier's works for performance evaluation prior to despatch. Manuals, calibration certificates, weld parameter chart and welding performances shall be witnessed during inspection.11 Documentation: The following documents are to be furnished along with equipment 11.1 1 set of Manual for each machine with Operational & Maintenance details, weld parameters selection for various base metals, Master List of Parts & Spares used in the machine with rating ,troubleshooting manual, Electrical and electronic circuit diagrams to be supplied along with the equipment.11.2 Test certificate.11.3 Maintenance and trouble shooter manual.11.4 Calibration certificate traceable to NABL standards.11.5 Electrical and electronic circuit diagrams.12 After sale service: The supplier should have own service center, having adequate stock of spares and to depute their service engineers within 2 working days in case of breakdown. Penalty for delay will be recovered from security deposit/performance bank Guarantee for any loss of production /considerable down time during warranty will be at firm's risk/cost.13 Other requirements13.1 The vendor shall offer spare support for continuous working of M/c for at least five years from the date of commissioning.</p> <p>SECTION # II: Qualifying Criteria: The BIDDER has to compulsorily meet the Qualifying criteria indicated to get qualified. Otherwise the technical offer will not be considered.</p> <p>SI. No Requirement</p> <p>1 The BIDDER/OEM shall have minimum of TEN Years (as on date of opening of tender) of Continuous Experience in Design, Manufacture & Supply of "IGBT based Inverter controlled Synergic Welding Power Sources for MIG/MAG welding with digital control " for Radiographic Quality Welding applications. Vendor shall indicate the actual no. of years of experience in the field.</p> <p>2 The BIDDER/OEM should have supplied a</p>			

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minimum of 40 Numbers of similar model "IGBT based Inverter controlled Synergic Welding Power Source for MIG/MAG welding with Digital Control" with a rating of 500A -60% Duty Cycle or above to customers in India during the last 5 years. The Bidder shall furnish the complete customer reference list with Details of Purchase Order, Quantity Supplied, Make / Model, Year of Commissioning and Contact details of the Party to whom the machine was Supplied. 3 The BIDDER Shall submit TWO Performance certificates from any of the customers (especially from Heavy Engineering / Fabrication / Shipbuilding, Public/Private sector companies) for satisfactory performance of minimum 5 Nos of the model quoted against this tender or a model with higher rating for minimum 5 Nos of the quoted model against this tender, for a minimum period of one year from the date of commissioning (as on original date of opening of tender). Full contact details of the customers from whom the performance certificates are obtained are to be provided. (A Format Enclosed in Annexure -1 for use by the Bidders customer, to give the PERFORMANCE CERTIFICATE) 4 The Bidder Shall have Servicing facility available near Palakkad. Details on Service-After-Sales Set-Up in India (Address of Agents /Service Centres), to be furnished compulsorily. 5 BEML reserves the right to accept or reject the BIDDER / VENDOR (OEM) offer based on the assessment of their technical capability. BEML reserves the right to verify the information provided by the Bidder/ Vendor for the referred machine. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected. 6 The BIDDER shall give details about supply of similar welding machines to BEML units if any with Make, Model and Year of Supply & Commissioning etc. 7 Bidder other than OEM should be an authorized representative of OEM for the purpose of warranty, maintenance and spare parts supply.

SGST - State GST	%	_____
Basic Price	INR	_____
CGST - Central GST	%	_____
IGST - Integrated GST	%	_____