



सी एस आई आर-केन्द्रीय यांत्रिक अभियांत्रिकी अनुसंधान संस्थान CSIR - CENTRAL MECHANICAL ENGINEERING RESEARCH INSTITUTE

(सीएसआईआर का एक संघटक संस्थापन, भारत सरकार) (A Constituent Establishment of CSIR, Govt. of India)
महात्मा गांधी एवेन्यू,
दुर्गापुर - 713209, भारत
Mahatma Gandhi Avenue
Durgapur - 713209, India



CSIR-CMERI

TENDER DOCUMENT

No. PUR/260/AMC/MP/P/2019-20

Dated: 23.08.2019

To
M/s. Fronius India Pvt. Ltd.
GAT No. 312, Nanekarwadi,
Chakan, Tal. Khed,
District Pune 410501
E-mail: data.chandan@fronius.com

Sub.	Supply of Robot integrated Pulse Synergic Intelligent MIG/MAG Welding Machine
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Dear Sir,

E- Bids for purchase of the items(s) detailed below are invited through the electronic tendering process of Government of India, <https://etenders.gov.in>. Please note that the submission of e-Bids will be only through the e-Tender portal <https://etenders.gov.in>. Bids will not be accepted in any other form. Further it may be noted that Bids which are duly submitted on e-Tender portal shall only be considered and Bids just saved without submission will not be available to the Evaluation Committee of CSIR-CMERI.

SL. No.	Description of item/equipment including detailed specifications and summary of its functions	Quantity Required
1.	Robot integrated Pulse Synergic Intelligent MIG/MAG Welding Machine (Details as per attached technical specification)	01 No.

The e-Bid shall be digitally signed by the bidder at the e-tendering portal by person/persons duly authorized to bind the Bidder to the contract. The person or persons signing the e-bid shall also physically sign each document of the Bid, except for printed literature. The e-Bid submitted shall be in readable form and encrypted as per e-tendering portal requirements. Standard Printed terms and conditions of the Bidder other than the NIT conditions shall not be considered.

Sl. No.	Document Required	Document type
1	Scanned Quotation with complete technical details duly signed by Bidder.	.pdf
	Price Schedule Form (MS-EXEL BOQ file)	.xls

Documents:

Handwritten signature

The bidders shall digitally sign and encrypt their bid and upload the bid on-line at the e-Tendering portal.

Purchaser shall receive the bids online through CPP E-portal only. The e-Tender portal shall automatically stop accepting bids at the scheduled date and time specified in the said portal. Partially submitted bids shall be treated as invalid and shall not be processed. Bidders are advised to upload and submit their bids timely in view of the electronic process so as to avoid last minute issues.

Purchaser may, at its discretion extend the deadline for submission of the e-Bids by amending the Tender Documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

Bidders must note that the e-tender portal shall not permit uploading of bids after the scheduled time of submission.

The bidder may correct or modify his digitally signed bid after submission prior to the deadline for submission of bids, through provisions of e-tendering portal.

TERMS AND CONDITIONS

1. PRICES :

1.1. For Goods manufactured and Supplied from within India:

Prices shall be offered with the following break-up :

Basic Price /Ex Works	
Packing & Forwarding	
GST at rates applicable for Public Funded Research Institute registered with DSIR, Government of India.	
Freight , Insurance and any other charges incidental to delivery of Goods at CSIR-CMERI, Durgapur	
Charges for Installation, Commissioning and Training if applicable	
Charges for Warranty Support	

1.2. For Goods manufactured and Supplied from outside India :

Prices shall be offered with the following break -up:

Ex Works Price [inclusive of packing]	
Inland Freight and Insurance till airport of despatch	
Freight And Insurance for transportation of the Goods from Port of Despatch to Port of destination	
Charges for Installation, Commissioning and Training if applicable	
Charges for warranty support	

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- 1.3. Where there is no mention of packing, forwarding, freight, insurance charges, taxes etc. such offer shall be rejected as incomplete.
- 1.4. The price quoted shall remain fixed during the contract period and shall not vary on any account.
- 1.5. The purchases made by this Institute, for scientific purpose are paid GST @ 5% against Concessional GST Certificate to be issued by CSIR-CMERI under Govt. of India Notification No. 47/2017- Integrated Tax(rate) Dt: 14 Nov. 2017, Notfn. No. 45/2017 - Central Tax (Rate) dt. 14.11.2017, Notfn. No. 45/2017 - Union Territory Tax (Rate) dt. 14.11.2017 and Customs Duty Exemption in terms of Notfn. No. 51/96 - Customs dt. 23.07.1996.
- 1.6. Customs Duty for Goods imported for Scientific Purpose, is paid by this Institute at a concessional rate vide Govt. of India Notification no. 51/96-Customs dated 22/07/1996.
- 1.7. CSIR-CMERI will not issue any exemption certificates (Customs Duty/GST) for intermediate goods, raw materials etc. that go into production of the equipment/item offered by the bidder.

2. PAYMENT

2.1. For Supplies made from within India :

- 2.1.1. Payment will be made within 30 days of delivery, inspection, installation, commissioning of goods to the complete satisfaction of the User Division of CSIR-CMERI and completion of other contractual obligations against submission of pre-receipted bills duly supported with delivery challan.

2.2. For Supplies made from outside India :

- 2.2.1. An irrevocable Letter of Credit [L/C] shall be opened in favour of the overseas vendor. In case the L/C is required to be confirmed , confirmation charges shall have to be borne by the vendor The payment will be released in the following two stages :

Stage I : 80% payment shall be made against presentation of shipping documents as stipulated in the L/C.

Stage II : Balance payment shall be made against presentation of Certificate issued by this Institute [CSIR-CMERI], evidencing that the ordered goods have been installed and commissioned to the complete satisfaction of the User Division of CSIR-CMERI and a PS/PBG for 10% of Purchase Order value has been furnished and all other contractual obligations have been fulfilled by the vendor.

- 2.3. All bank charges within India shall be borne by CSIR-CMERI and all bank charges outside India shall be borne by vendor.

3. DELIVERY



- 3.1. The goods / equipment is required to be delivered within 10-12 weeks and the exact delivery time required from the date of receipt of L/C or Purchase Order may be indicated in the bid. If the supplier fails to deliver the ordered material(s) within the delivery schedule as agreed upon, a sum equivalent to 1 (one) per cent of the order value for each week of delay or part thereof until actual delivery, will be deducted from the order value as liquidated damages, subject to a maximum deduction of 10 (ten) per cent of the order value. And, on attainment of maximum, termination of the contract may be considered by CSIR-CMERI.

4. RISK PURCHASE

- 4.1. If the supplier fails to deliver the ordered material(s) within the maximum delivery period specified in the purchase order, CSIR-CMERI may procure such item(s) and in such a manner as deemed appropriate, goods or services similar to those undelivered and the supplier will be liable to the institute for any excess costs for such similar goods or services.

5. INDIAN AGENT

- 5.1. Foreign bidders to disclose the name and address of agent and representative in India and Indian bidder to disclose their foreign principal or associates.
- 5.2. In case an Indian Agent is directly submitting a bid on behalf of its Principals, a copy of the Authorisation Certificate issued by the Principals in favour of the Indian agent should be furnished along with a copy of the Agency Agreement (Between the Principal and the Indian agent). Both these certificates should be up-to-date and valid.
- 5.3. Agency Commission, if any, payable to the Indian agent will be released within 60 (sixty) days of completion of installation and commissioning of the equipment to the entire satisfaction of the buyer. For determining the value of agency commission, exchange rate of foreign currency prevailing on the date of negotiation of documents, will be taken into consideration.
- 5.4. In a tender either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
- 5.5. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.

6. INSTALLATION, COMMISSIONING AND TRAINING

- 6.1. The ordered goods are to be installed within 30 days of receipt of goods at this Institute if required. Installation should be carried out only by expert engineers of Supplier / Manufacturer at Free of Cost basis. During the course of installation, necessary training on operation and maintenance of the goods shall be imparted to Institutes, Scientist / Engineers/Technicians.

7. WARRANTY



- 7.1. Comprehensive warranty of one (01) year must be provided to be effective from the date of completion of installation and commissioning and final acceptance of the equipment at the user's laboratory.

8. COUNTRY OF ORIGIN

- 8.1. Tenderer should mention the country of origin and the country from which goods will be finally shipped, for these particulars are essential for establishment of L/C, arranging insurance etc. Certificate of Origin issued by the Local Chamber of Commerce shall be required to be submitted at the time of negotiating the L/Credit, in case payment is made by L/Credit.

9. VALIDITY OF BIDS

- 9.1. The offer should be valid for at least 90 days from the date of the quotation.

10. LIST OF PURCHASERS

- 10.1. Please indicate names and addresses of organisations to whom you have supplied identical or similar type of equipment during the last 3 years along with the details of such supplies and prices eventually or finally paid.

11. SETTLEMENT OF DISPUTES AND ARBITRATION

- 11.1. The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Purchase Order / Contract. If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. .
- 11.2. Disputes or differences shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director General, Council of Scientific & Industrial Research and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
- 11.3. In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of Clause 11.2. above. But if this is not acceptable to the Supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade laws).

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11.4. The venue of the arbitration shall be the place from where the purchase order or contract is issued.

11.5. Notwithstanding any reference to arbitration herein,

(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

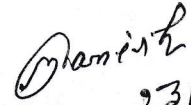
(b) the Purchaser shall pay the Supplier any monies due the Supplier.

12. APPLICABLE LAW

12.1. The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to a court of competent jurisdiction in Durgapur, West Bengal, India.

13. Wherever deemed necessary, Bidder shall be at liberty to question the Bidding Document, Bidding process and rejection of its Bid.

Yours faithfully,


23/8/19

Assistant Section Officer (S&P)

For DIRECTOR

मनीष कुमार पाण्डेय / Manish Kumar Pandey
E-mail: mpur@cmert.res.in
सहायक अनुभाग अधिकारी (भंडार एवं क्रय) / Assistant Section Officer (Stores & Purchase)
सी.एस.आई.आर.-केन्द्रीय यांत्रिक अभियांत्रिकी अनुसंधान संस्थान
CSIR- Central Mechanical Engineering Research Institute
महात्मा गांधी एवेन्यू / Mahatma Gandhi Avenue
दुर्गापुर- 713209 / Durgapur-713209

TECHNICAL SPECIFICATIONS FOR Robot integrated Pulse Synergic Intelligent MIG/MAG Welding Machine

SI	Parameter	Required Specification
1	Manufacturers Credentials	Manufacturer must be ISO 9001 certified. Please enclose Certificate
		Manufacturer must be ISO 14001 certified. Please enclose certificate
		Manufacturer may be OHSAS 18001 certified. Please enclose certificate
		Bidder if not the manufacturer, must provide Manufacturer's Tender Specific Authorization that the bidder is authorized sales & service provider.
2	Mains voltage	3x 400 V
3	Mains voltage tolerance	+/- 15 %
4	Mains frequency	50 / 60 Hz
5	Power factor	Should be 0.99
6	Welding current range in MIG/MAG	3 - 320 A
7	Welding current at 10 min / 40 °C (104 °F)	320A @ 40% D.C. 240A @ 100% D.C.
8	Output voltage range in MIG/MAG	14.2 - 30.0 V
9	Open circuit voltage	< 75 V
10	Type of Cooling	Air Cooled
11	Degree of protection	IP 23
12	Overvoltage category	III
13	Pollution level according to IEC60664	3
14	EMC device class	A
15	Safety symbols	S, CE
16	Robotic Welding Torch	
16.1	Capable of Wire diameter	0.8 to 1.6mm (1.2mm is in scope only)
16.2	Duty Cycle	320 A @ 40% D.C. in ArCO ₂ 320 A @ 60% D.C. in CO ₂
16.3	End neck angle	22 Degree
17	Robot wire Feeder	
17.1	Supply voltage	24 V DC / 60 V DC
17.2	Wire feed speed	1 - 25 m/min
17.3	Wire drive	4-roller drive
17.4	Capable of Wire diameter	0.8 – 1.6 mm (1.2mm is in scope only)
17.4	Shielding gas pressure	Max. 7 Bar
18	Interconnection cable assembly	4m long cable comprising of 70mm ² power cable to carry welding current of 320A fitted with copper cable connectors, gas hose & electrical control cable of 4m each between power source and wire feeder unit.
19	Earth cable	4m long 70 mm ² Copper cable fitted with earth clamp.
20	Pressure regulator	Ar/CO ₂ Standard 3-30 l/min.
21	Robot controller specification	
21.1	Type	Floor Mounted Welding Robot
21.2	Number of controlled Axes	Six (6)
21.3	Rated Payload	4 Kg
21.4	Rated Armload	10 Kg
21.5	Robot Reach	1.5m
21.6	Protection	IP40
21.7	Positional repeatability	0.05mm
21.8	Path repeatability	0.35mm
21.9	Power consumption	ISO cube 0.6 kW
21.10	Controller	IRC5 Single Cabinet
22	Hardware & software	a) Modular Design – Equipment is of modular design ie. New characteristics/Special Softwares/ Programs are easy to upload via USB stick/LAN Cable/Internet. b) Automatic Component Detection – Machine is able to recognize components that are connected at any point and warns of

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		<p>Incompatibilities.</p> <ul style="list-style-type: none"> c) Quick & easy networking of equipment should be possible. d) Error code display for fault detection with text written display in welding Power source panel. e) Internal communication speed including feedback system of the machine should be 100MB/sec. f) Full Touch screen & colour Front panel of welding power source for Display and control panel (touch screen) to directly operate the power source by pressing the buttons on the display even with wearing gloves g) Adjustable display parameters of welding process- Welding current, welding voltage, wire feed speed, dynamic, Arc length correction, pulse correction. h) In MIG process Starting current and end current can set 0-200% of the welding current for smooth start and end. Should have provision to select the length of time (0.1-10 Sec.) the starting or end current is to be active. i) Machine should be measure & display the Resistance & Inductance of the total welding circuit for every job thus resistance or inductance should not effect in the welding. j) Machine should have English & Hindi language and should show time & date on display. k) Machine should have inbuilt features to lock & Unlock by NFC card & having different management modes. l) Machine should have Inbuilt arc time & total operating time counter. m) 2T, 4T, Special 2T and Special 4T torch switch triggering mode should be available which should control from power source control panel. n) Machine have 1000 nos. memory location to store various welding parameter. o) Machine should have inbuilt welding data monitoring system which will automatic save welding current, welding voltage, wire feed speed, Heat input, time of welding in one stop. These data can be transfer through LAN cable, Pen Drive or Online and possible to convert fully Industrial 4.0 compliance. p) Machine should have the burn back control, crater fill, wire feed speed control. q) The Machine should have provision to incorporate Touch Sensing Mode by wire & Nozzle. r) Provision for take machine backup & restore backup, Error log recording & export facility. s) Machine should have provision to incorporate current limit monitoring option t) In future possibility to connect cooling unit With Flow sensor & level sensor & Provision for wire feeder motor calibration in future.
23	Welding characteristics	<ul style="list-style-type: none"> a) Machine should have one knob Synergic welding process. b) Pulse synergic welding for pulsed-arc process with controlled material transfer. c) Machine should have provision to upgrade to Pulse Controlled Spray arc for Direct transition from the concentrated pulse to a short spray arc. d) Machine should have provision to upgrade from Normal Pulse to advance Pulse MIG welding mode. e) Machine should have provision to incorporate the Arc Length Stabilization, Penetration Stabilization and CMT Features in future.

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