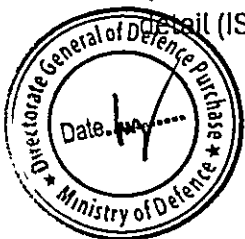


TENDER SPECIFICATION OF HANDHELD LASER WELDING MACHINE WITH WIRE FILLING SYSTEM AND ACCESSORIES FOR PLATTER AND WELDING SHOP BN DOCKYARD MONGLA

1. **Name of the Equipment.** Handheld Laser Welding Machine with wire filling system.
2. **Purpose** The handheld laser welding machines will be used for welding thin wall material parts with precision.
3. **Quantity.** 2 (Two).
4. **Manufacturer, Principal Supplier & Local Supplier.** Names and full addresses are to be mentioned in the following table.

| Ser | Description | Remarks |
|-----|--------------------|-----------------|
| a. | Brand/Manufacture | To be mentioned |
| b. | Principal Supplier | To be mentioned |
| c. | Local Supplier | To be mentioned |

5. **Year of Manufacture.** 2024 or later. The item should be brand new and original.
6. **Country of Origin.** USA, UK, EU Countries, Japan, Canada, Australia, South Korea, Turkey and New Zealand.
7. **Manufacturing Country.** Same as Country of Origin.
8. **Certificate/Document of Authentication.** The local supplier must provide the following original certificate(s)/ document(s) with the offer/quotation of items as regard to the genuinity of the source and item(s) to establish a chain of links from the source to supply:
 - a. One certificate/ document from the manufacturer in favour of the supplier (in the case of the manufacturer as the direct source).
 - b. Two certificates/ documents, one from the manufacturer to the authorised agent and the other from the authorised agent to the supplier (in case the authorised agent is the immediate source).
 - c. Three certificates/ documents, first one by the manufacturer to the authorised agent, second one by the authorised agent to the sub-agent and third one by the sub-agent to the supplier (in case of the sub-agent as immediate source). If the supplier is unable to obtain the first certificate (by the manufacturer to an authorised agent), then relevant documents to prove the agency-ship of its claimed agent of the recognised manufacturer need to be produced.
9. **Standard.** The Handheld Laser Welding Machine with a wire filling system is to be designed and constructed according to international standards. The standard to which the quoted Handheld Laser Welding Machine with wire filling system complies is to be specified in detail (ISO/ASME/AWS/NFPA or any other equivalent global standard).



10. **Ambient Condition.**

| Ser | Description | Remarks |
|-----|-------------------|-------------------------------------|
| a. | Air temperature | 5°C to 45°C |
| b. | Relative Humidity | Up to 95% |
| c. | Location | Close to the seashore or hilly area |

11. **Scope of Supply.** The scope of supply is to include the following:

- a. 02 x Handheld Laser Welding Machine, with all items necessary for immediate operation without the requirement of any other items (attachments, accessories, consumables, etc) (as per paragraphs 12, 13 and 14).
- b. Optional Items (as per paragraph 16) (as selected by BN).
- c. Special tools (as per paragraph 17).
- d. Spare Parts (as per paragraph 18) (as selected by BN).
- e. Safety items, safety features and Safety devices (as per paragraphs 19, 20 and 26).
- f. Test, Trial & Acceptance and Training (as per paragraphs 21 and 22).
- g. Pre-Shipment Inspection (PSI) and Factory Acceptance Test (FAT) (as per paragraph 23).
- h. Documents (operation and maintenance manual, workshop level repair manual, parts catalogue, installation drawings, test certificates, etc, as applicable) (as per paragraphs 24 and 25).
- j. Warranty and Guarantee (as per paragraphs 27 and 28).
- k. Wire Feed Unit for each machine.
- l. Any other relevant items (if any).

12. **Technical Specification.**

| Ser | Description | |
|-----|---------------------|---|
| a. | Type | Portable Handheld laser welding machine with wire filling system |
| b. | Model | To be mentioned |
| c. | Maker | To be mentioned |
| d. | Applicable material | Stainless Steel, Carbon Steel, Iron plate, Aluminum plate, Galvanize steel, Copper, Brass |
| e. | Laser Power | Not less than 1600W |
| f. | Laser type | Fiber Laser Wobble Welder |



| Ser | Description | |
|-----|----------------------------------|------------------------|
| g. | Power requirement | 220 V AC \pm 10%, 50 |
| h. | Welding Thickness | <8mm (To be mentioned) |
| j. | Welding Speed | 0- 160 mm/s |
| k | Operating Temperature Range | |
| | (1) Storage Temp | To be mentioned |
| | (2) Operating Range | |
| l. | Spot Size | To be mentioned |
| m. | Wobble length | Adjustable up to 5mm |
| n. | Cooling | Air cooled |
| p. | Weld head | |
| | (1) Collimating length | To be mentioned |
| | (2) Focus Length | |
| | (3) Spot Length | |
| q. | Weld Base Unit (L x B x H) | To be mentioned |
| r. | Weld Module weight | To be mentioned |
| s. | Umbilical connection | Not less than 5m |
| t. | Pulse width | To be mentioned |
| u. | Pulse energy | |
| v. | Pulse Frequency | |
| w. | Adjusting the Range of spotlight | |
| x. | Feeding wire length | 30 m |
| y. | laser wavelength | \pm 1% |
| z. | Weld head adjustable | 0-5mm |
| aa. | Laser frequency | 1070 \pm 10nm |
| ab. | Wire Feeder Spool Capacity | Minimum 20 kg |
| ac. | Weight | To be mentioned |

13. **User Interface.** The Handheld Laser Welding Machine should have front panel controls of laser power, mode, wobble length, and wobble frequency. Laser on-off switch, E-stop button, status indicating light, etc.

14. **Standard Accessories.** Standard accessories must include all items and accessories essential to operating the Handheld Laser Welding Machine, whether mentioned in the specification or not. The price of standard accessories is to be included in the FOB value. However, an itemised price list of standard accessories is to be provided with the offer for reference value only.

15. **Standard Tools.** 01 (one) set of standard tools for the maintenance of a Handheld Laser Welding Machine is to be provided. The price of standard tools is to be included in the FOB value. However, an itemised price list of standard tools is to be provided with the offer for reference value only.

16. **Optional Items.** A list of optional items (if any) for two Handheld Laser Welding Machines is to be mentioned, indicating the itemised price. Technical details of these items should be given in the offer. Only the prices of selected items by BN will be added to the total price while evaluating the comparative prices of the suppliers.



17. **Special Tools.** A recommended list of special tools required for carrying out maintenance of Handheld Laser Welding Machines is to be submitted with the quotation indicating itemised price. That price will be added to the total price while evaluating the comparative price of the suppliers.

18. **Spare Parts.** A recommended list of spare parts required for 05 years of satisfactory operation must be provided, indicating the itemised price. Only the prices of selected items by BN will be added to the total price while evaluating the comparative prices of the suppliers.

19. **Safety feature.** The Handheld Laser Welding Machine should have the following safety features:

| Ser | Description |
|-----|----------------------------------|
| a. | The key for laser On-Off. |
| b. | 2-Step laser operation trigger. |
| c. | Part-head contact safety circuit |
| d. | Facility door interlock circuit |

20. **Safety Items.** The following safety items should be supplied with each Handheld Laser Welding Machine:

| Ser | Description | Qty |
|-----|-------------------------|----------|
| a. | Head Screen (IR Shield) | 01 in no |
| b. | Safety Goggles (OD 8) | 01 in no |
| c. | Hand gloves | 01 pair |
| d. | Leather apron | 01 pair |

21. **Test, Trial and Acceptance.** Test and trial for the Handheld Laser Welding Machine will be carried out by the buyer in the presence of the supplier's representative. After a satisfactory test and trial, an Acceptance Certificate will be signed jointly by the Supplier's representative and the representative of the Buyer.

22. **Training.** The Manufacturer's/ Supplier's representative will provide operation and maintenance training in Bangladesh to 5 x Operators for 3 working days after the test, trial, and acceptance of the said equipment. The cost of airfare, accommodation, and food of the manufacturer's /supplier's representative is to be borne by the manufacturer/ supplier.

23. **Pre-Shipment Inspection (PSI) and Factory Acceptance Test (FAT).**

a. Pre-shipment inspection (PSI) and Factory Acceptance Test (FAT) will be carried out by 2 (two) BN officers for 3 (three) days, excluding the journey period, at the buyer's expense. The supplier should inform the buyer about the date, schedule, and procedure of PSI and FAT at least 8 (eight) weeks before the date of commencement of the said PSI and FAT. After inspection, a joint inspection report will be prepared and signed by both the seller and buyer's representatives.

b. On return from the country of supplier, the BN officers will submit a report to the DNE. DNE, through DTS, will, in turn, forward the final decision along with the PSI and



FAT report within 1(one) week, based on which DGDP will render clearance for the shipment of stores to the supplier concerned. The supplier will not make shipment of any item of the contract without clearance from the Directorate General Defence Purchase.

c. The supplier must arrange all types of movement/ transportation (air, sea, road, rail) of the BN officer within the manufacturer/ supplier's country, reception, and entry into the country/ concerned area for the PSI and FAT without any extra cost.

24. **Documents.** 2 (Two) sets of the following documents in English are to be provided with each of the Handheld Laser Welding Machine (free of cost):

| Ser | Description |
|-----|---|
| a. | Instruction Manual. It should contain the following: |
| | (1) Detailed particulars and specifications of the Handheld Laser Welding Machine and their components |
| | (2) Operation and safety instruction |
| | (3) Maintenance instructions, including maintenance schedule for the Handheld Laser Welding Machine & their accessories |
| b. | Workshop-level repair manual |
| c. | Parts catalogue and parts identification list with internationally recognised Part No |
| d. | Factory test certificate |

25. **Quality Assurance Certificate.** Quality Assurance Certificate in respect of the associated equipment regarding its manufacturing and performance is to be provided at the time of delivery of the items.

26. **Safety Devices.** The machine shall be provided with mechanical and electrical safety devices to avoid accidents to the operator and damage to the machine

27. **Warranty.** The principal/manufacturer will give a warranty for trouble-free operation for at least one year from the date of acceptance by the buyer. During the warranty period, if the Handheld Laser Welding Machine remains non-operational due to any action pending by the supplier, the warranty will be extended for the same period. The warranty covers all parts and labour (including the cost of the service engineer) throughout the warranty period.

28. **Guarantee.** The manufacturer will guarantee to supply the spare parts for at least 5 (five) years at a reasonable price. The annual increase in the price of spares should not be more than 5% of the price list provided with the quotation.

27. **Shipment.**

a. The supplier will arrange the shipment of all items by sea to Chattogram Port, Bangladesh.



- b. All items are to be delivered in sea-worthy packing to ensure safe transportation by sea.
- c. All packages must have detailed packing notes showing their contents, and they must be marked with the consignee's name, address, and gross weight.
- d. The supplier will arrange transportation of all supplied items from Chittagong port to the NSD Chattogram.
- e. **Port of Shipment.** Any port of the manufacturing country. In case of shipment through any port of the manufacturer's authorised dealer, the relevant manufacturer's certificate is to be provided as proof of the genuineness of the offered item.

28. **Delivery.**

- a. The items are to be delivered within **9 (Nine) months** from the date of signing the contract to the following consignee:

The Commanding Officer
NSD Chattogram
New Mooring, Chattogram
Bangladesh

- b. **Place of Delivery.** NSD Chattogram.
- c. The supplier will carry the items from Chattogram Port to NSD Chattogram at the cost and risk of the supplier.

29. **Validity of Offer.** The offer should remain valid till 180 days from the date of tender opening.

30. **Currency.** Foreign Currency.

31. **Terms of Payment.** L/C for the full purchase amount will be opened in favour of the principal supplier under the following payment terms:

- a. 80% of the total CFR value will be paid on delivery of the items described under the scope of supply and on production of necessary shipping documents.
- b. The remaining 20% of the CFR value will be paid upon producing an 'Acceptance Certificate' after a satisfactory test and trial jointly carried out by the buyer's and supplier's representatives.

32. **Condition for Acceptance of Quotation.** The quotation has to have supporting documents (booklets, leaflets, catalogues, brochures, etc.) with details about Held Laser Welding Machine. If detailed information regarding specifications, maker's books, and catalogue for the quoted model of the Held Laser Welding Machine, spare parts, accessories, scope of supply, etc, are not provided; the quotation will not be accepted.



33. **Compliance Statement.** A compliance statement fulfilling all the requirements of the tender is to be submitted with the offer for evaluation of the quotations. Merely stating 'Yes' or 'No' will not suffice, rather detailed descriptions/information as required are to be provided. An incomplete compliance statement may contribute to the cancellation of the offer. If any clause of this specification is not commensurate with the offered Handheld Laser Welding Machine, the deviation must be spelt out clearly.

