



**GOVERNMENT OF PAKISTAN**  
**PAKISTAN ORDNANCE FACTORIES**  
**WAH CANTT**

**CORRIGENDUM**  
**INVITATION TO BID**

**Tender Enquiry No. 3521-2-5-50-Capt-Pur-AA, dt. 02-3-2021 Special Purpose 5-Head**  
**Multi-Spot Welding Machine for Tail Unit of Projectile Body (Qty. 01 off)**

Following amendment is hereby made in the above cited "Invitation to Bid" uploaded on PPRA website & TE was uploaded on POF website on 03-3-2021 and published in Print Media on 06-3-2021:-

**Clause-3 of "Invitation to Bid" and TEs Clause-1(1.1 & 1.2) "SUBMISSION OF TENDER"**

**FOR** Existing

**Read** The proposals completed in all respects (bearing the Tender Enquiry reference number and addressed to the undersigned) must reach Bid Centre adjacent to Rabita Hall on or before **06-5-2021** but not later than closing time **10:30** hrs. The Tenders will be opened at **11:00** hrs. on the same date.

**NOTE:** All other terms & conditions of TEs will remain same.

Managing Director-AA-Fy.  
Tel: 0092-51-9055-21035  
Fax: 0092-51-9271400  
E-mail:- [mdaa@pof.gov.pk](mailto:mdaa@pof.gov.pk)  
Dated: 05-4-2021



GOVERNMENT OF PAKISTAN  
PAKISTAN ORDNANCE FACTORIES  
TENDER ENQUIRY

To

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Dear Sirs,

Reference: - TENDER ENQUIRY NO. 3521-2-5-50-Capt-Pur-AA, dated 02-3-2021

You are requested to submit sealed quotations for the item noted on the Schedule to the Tender. Please note the following instructions for filling the tender:-

1. **SUBMISSION OF TENDER**

1.1 Tenders will be opened at 1200 hours on 08-4-2021 and must reach this office on or before that time. The tender received late will not be entertained. You may witness the opening of the tender if you so desire. If a representative is deputed, he should bring a letter of authority from you.

1.2 Only one tender should be included in one envelope. The outside of the envelope should be inscribed with: -

Tender Enquiry No: 3521-2-5-50-Capt-Pur-AA, dated 02-3-2021

Tender to be opened on: 08-4-2021

Address as follows:-

**Managing Director  
Artillery Ammunition Factory  
Pakistan Ordnance Factories,  
Wah Cantt, Pakistan.  
Fax : 051-9314100 & 051-9271400  
Email : [mdaa@pof.gov.pk](mailto:mdaa@pof.gov.pk)**

1.3 If envelope do not indicate reference of TE or received late, the same will be returned un-opened.

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## 2. **GENERAL INSTRUCTIONS REGARDING PREPARATION OF QUOTATIONS**

- 2.1 For materials, the prices should be filled in column 5 and delivery date in column 6 of the schedule to this Tender Enquiry. The undertaking should be signed at the bottom of the Schedule which shall form the Quotation. You may use a separate sheet if necessary.
- 2.2 For Plant & Machinery, you are required to quote in two parts:-
- Part-I "TECHNICAL OFFER" It should exclusively give technical details and literatures/brochures of the offered plant, machinery and equipment; validity date; delivery schedule; and signed undertaking given on the schedule to this Tender Enquiry. It must not indicate price, costs etc.
- Part-II "COMMERCIAL OFFER" It should indicate the commercial terms e.g. price, terms of payment, mode of payment, mode of supply.
- Each part should be placed in a separate sealed cover. The envelope should be inscribed with Part-I "Technical Quotation without Price" and Part-II "Commercial Quotation with Price".
- 2.3 The quotation must remain valid for, at least 90 days from the date of opening of tenders.
- 2.4 The quotation should hold good for any reduced or enhanced quantities without notice.
- 2.5 In the event of non-acceptance of offer, intimation may be given to the Tenderers on their request.
- 2.6 Conditional offers or alternative offers are likely to be ignored.
- 2.7 Quotations should be based on FOB. The consignment will be shipped through Pakistan National Shipping Corporation (PNSC). In case there is no PNSC service in the country of shipping, please quote on C& F basis. The freight should be indicated separately. Insurance premium should not be included in the quoted price. However, where insurance is considered necessary, advice to that effect should be given in the quotation.
- 2.8 Submission of the offer through an agent in Pakistan should be avoided. In case it is considered inevitable, the agent's quotation must invariably be accompanied by the original proforma invoice from the principals/ manufacturers. **However, contract will be placed on principals / manufacturers.**
- 2.9 Country of origin and port of shipment to be stated.
- 2.10 The offer of principal must clearly indicate whether the rate quoted is inclusive of agent's commission, and if inclusive rate of commission included be specified.
- 2.11 Supplier will render necessary information regarding hazardous effects on environment, of the materials/products supplied by them, in their quotations and shipping/despatch documents.
- 2.12 If the requisite information is not furnished on the TE form or offer received is not in conformity with the requirement of the TE, the offer shall be ignored.

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3. **INSPECTION**

- 3.1 Pre-shipment inspection / acceptance of the machine at supplier's premises will be conducted by PSI Team comprising of POF Engineers.
- 3.2 The supplier will provide Warranty / Guarantee Certificate of the machine, equipment & accessories which will be valid for a period of 12 x months after successful installation & commissioning of the machine.

4. **ACCEPTANCE OF OFFERS**

- 4.1.1 The procuring agency may reject all bids or proposals at any time prior to the acceptance of a bid or proposal. The procuring agency shall upon request communicate to any supplier or contractor who submitted a bid or proposal, the grounds for its rejection of all bids or proposals, but is not required to justify those grounds.
- 4.1.2 Procuring agency shall incur no liability, solely by virtue of its invoking sub-rule (1.1) towards suppliers or contractors who have submitted bids or proposals.
- 4.1.3 Notice of the rejection of all bids or proposals shall be given promptly to all suppliers or contractors that submitted bids or proposals.

4.2 **PERFORMANCE BOND**

- (a) The successful bidder will provide Performance Bond at the rate of 10% of FOB value of the contract in favour of Controller of Military Accounts (CMA), Wah Cantt. The Performance Bond will be furnished in the form of Deposit At Call Receipt (CDR) from any scheduled Bank in Pakistan or an unconditional bank guarantee on prescribed Proforma covered by any schedule bank in Pakistan. The Performance Bond shall be furnished within 45 days from the date of opening of Letter of Credit. The same will be got extended upto 12 x months after successful installation & commissioning of the machine accordingly. If the Performance Bond is not furnished within the above mentioned prescribed time, the Purchaser reserves the right to cancel the contract and make other arrangements for purchase of the stores at the risk and expense of the Supplier.
- (b) No Performance Bond will be required if the total FOB value of the contract is less than US \$ 50,000 and contract is placed directly on the foreign supplier.

4.3 **FAILURE TO SUPPLY THE STORES**

All deliveries must be completed by the specified date. If the failure to deliver the stores within the scheduled time should have arisen from "Force Majeure", which the Purchaser may admit as reasonable ground for further time, he will allow such additional time as he may consider to have been required by the circumstances of the case. Otherwise, he will be entitled, at his discretion, to cancel the contract; and /or, claim liquidated damages upto 2% but not less than 1% of the contract price of the items and their quantities for each and every month or part of a month, beyond the specified delivery date, during which these may not be delivered, subject to a maximum of 10% of the total contract value of particular store which remained unsupplied either in part or in full or, to purchase, from elsewhere, the unsupplied stores at the risk and cost of the Supplier.

Contd...

4.4 **PAYMENT**

- i. 90% payment will be released through LC against shipping documents, including Acceptance Certificate signed by PSI team, confirming satisfactory pre-shipment inspection.
- ii. 10% payment will be released through LC on receipt of machine, inspection & installation, commissioning and satisfactory completion of trial run of the machine at purchaser premises against the final acceptance test certificate issued by the purchaser at site.

All Bank charges incurred in Pakistan in connection with the establishment of LC will be borne by the Purchaser, whereas all Bank charges incurred in connection with drawing of payment including charges for confirmation of LC by the advising Bank/Foreign Bank will be borne by the Supplier.

5. **SECURITY OF INFORMATION**

The tenderer and his employees must not communicate any information relating to the sale/purchase of stores under this enquiry to any person other than the manufacturer or to any press or agent not authorized in writing by POFs to receive it.

Please return the Schedule to the Tender duly signed by the specified date, along with the specifications drawings etc. if any, enclosed herewith - even if you are unable to quote.

**WARNING**

In case the firm abstain from making offers or fail to return/acknowledge the tender form by the specified date on three consecutive occasions, no further tender enquiry may be issued to them and their names would liable to be removed from the approved list.

Yours faithfully,

**(Waqas Ahmad)**  
**Managing Director-AA**  
For and on behalf of the President  
of Islamic Republic of Pakistan

**PAKISTAN ORDNANCE FACTORIES**SCHEDULE TO TENDER NO. 3521-2-5-50-CAPT-PUR-AA, DT. 02-3-2021**(1) FOR PLANT AND MACHINERY**

(1)	(2)	(3)	(4)	(5)		(6)
Item No.	Description with Specs etc.	Unit	Qty.	Price Per Unit (FOB Value)		Delivery Date
				In Figures	In Words	
1	Special Purpose 5-Head Multi-Spot Welding Machine for Tail Unit of Projectile Body	Nos.	01			

- (2) Specifications: Enclosed as Annexure-'A & B'  
 (3) Special Conditions: Enclosed as Annexure-'C'  
 (4) Tech. Comparison: Enclosed as Annexure-'D'

Note:- SINGLE STAGE-TWO ENVELOPE PROCEDURE:

- i. The bid shall comprise a single package containing two envelopes. Each envelope shall contain separately the technical and financial proposal.
- ii. The envelope shall be marked as "Technical Proposal" & "Financial Proposal" in bold and legible letters to avoid confusion.
- iii. Initially, only the envelope marked "Technical Proposal" shall be opened.
- iv. The envelope marked as "Financial Proposal" shall be retained in the custody of Bid Centre.
- v. During the technical evaluation, no amendments in the technical proposal shall be permitted.
- vi. The financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance.

**(5) UNDERTAKING:**

Should our offer be accepted, we hereby undertake to supply the stores/render the services contracted on the basis of Conditions of Contract embodied in Form POF 1282, and to deposit the performance bond within the prescribed time, failing which it will constitute a breach of contract, and POF will have the right to purchase the stores/services elsewhere at our risk and cost.

Place \_\_\_\_\_  
Date \_\_\_\_\_

Signature of Tenderer \_\_\_\_\_  
Name \_\_\_\_\_  
Position \_\_\_\_\_  
Address \_\_\_\_\_  
Income Tax G.I.R No. \_\_\_\_\_

**SPECIFICATION**

**1. Nomenclature & Description:**

Special Multi-Spot Welding Machine consists of a fabricated steel table-type base frame, on which 05 x air cylinders are mounted to operate welding heads. On the underside of the top table is the Index Beam on which component location Jig, Current Carrying Side Clamp Unit and Ejector Unit are mounted. On the top side of table, top clamp / component locator unit is mounted. 05 x water cooled transformers of 45 KVA each are also mounted on the lower table. One side of each transformer's secondary is connected to side clamps and the other side to each of 05 x welding Heads. Machine is pneumatically operated with Weld Control Timers, Control Circuit Relays and Selector Switches etc.

**2. Quantity:**

01 off Toolled-up Machine

**3. Technical Requirements of machine:**

The machine will be used for spot welding of following component. Drawings are attached as **Annexure-'B'**.

S. No.	Components to be manufactured		Output of the machine
	Drawing No.	Nomenclature	
i.	SK/COM-1314	Tail Unit	150,000 Nos. Per annum are to be spot welded in single shift of 2000 working Hours.

**4. Machine Controls:**

Feature(s)	Unit	Parameters
Type	-	Solid State Digital Control with Solid State Contactor, Weld Control Timers, Electrical Phase Shift Control and 05 x digital synchronic dual phase shift heat controls.
Trigger/Current up-slope	-	Foot switch or hand control
Display	-	Process progress indication and controller status display LED's.
Primary Current	Amperes	240
Minimum Secondary Current	Amperes	6500
Timing Accuracies	-	Better than $\pm 0.1$ %

**5. Existing Machine Features/Concept to be replaced by latest technology:**

Machine should consist of 05 x Spot Welding Machines in one with each having its Welding Transformer, Solid State Contactor and Weld Control Timer. Electrical phase shift control is also a compulsory part of machine. The control of the primary supply is via a special purpose, Solid State Welding Control Combination comprising of 05 x thyristor contactors, 05 x digital synchronic dual phase shift heat controls.

Contd...

<b>Feature(s)</b>	<b>Unit</b>	<b>Parameters</b>
Number welding heads	Nos.	5
Tip Diameter	mm	5
Welding Electrode Force	Lbs	738
Cylinder Diameter	mm	87
Electrode Material	-	Chrome Copper
Cooling Transformer Type	-	Water Cooling
Production per shift (7 Hrs)	Nos.	400 minimum
Contactory type	-	TC-100/9
Timer type	-	DSDP/4D
Welder Rating	KVa	5x 45 Max.
Primary Voltage	Volts	415
Welding air Pressure	Bars	6 Maximum
Materials to be welded	-	BS 970 Pt-3 Steel 070 M20 (Hot Rolled + Cold Drawn) And BS EN 10132-3-2000 C22E
Total Weight of machine	Kgs	Standard
Machine Dimesions	mm	Standard
Fixtures	-	As per drawing SK/COM-1733 Attached as <b><u>Annexure. 'B'</u></b>
Colour of Machine	-	Green RAL-6011
Optimized water cooling system with less consumption of water.		

6. **Accessories:**  
Complete Tool kit with standard spanners, Allen keys etc.
7. **Pneumatic System:**  
Machine operation is based on pneumatics with maximum operating pressure of 6 Bars.
8. **Tooling:**  
Provision of welding electrodes and welding fixtures.
9. **Spares:**  
Two years essential maintenance and operational spares shall be required. Back-up support for provisioning of spares for 10 x years. Detailed item wise list is as follows;-
  - i. Solenoid Coil
  - ii. Electrodes
  - iii. Solenoid Valve
  - iv. Gasket set
  - v. PCBs
  - vi. Relays 24 Volts DC
  - vii. Thyrister Contactors
  - viii. Timers
  - ix. Limit Switches
  - x. Safety switches
  - xi. Press switches



**10. Documentations:**

Literature must be inclusive but not limited to:

- i. 04 x sets of operating manuals
- ii. 04 x sets maintenance manuals
- iii. Details of electric schematics
- iv. Complete Data of machine

**11. Site Conditions & Available Services:**

- i. Electricity 400 Volts, 50 Hz, Three Phases
- ii. Electricity 220 Volts, 50 Hz, Single Phase
- iii. Compressed air pressure 6 Bars (Max.)
- iv. Temperature:
  - a. Winter -5 to + 20 °C
  - b. Summer 30 to 50 °C
- v. Relative Humidity 25 to 90%
- vi. Earthquake Value 7.5 on Richter scale

**12. Safety:**

Safety standards of machine should conform to IEC 60204-1(Safety of machinery) or other equivalent international machine safety standards. The equipment should be earthed as per latest earthing standards. System should be safe to handle spikes and transient power surges.

**13. Training & Pre-shipment Inspection:**

- i. The supplier will provide training to POF personnel at no additional cost to the 02 men for 01 x week on machine in the field of welding fixture setting, operations of machine, inspection, mechanical, electrical and electronics maintenance of machine at supplier's and its sub contractor's premises.
- ii. Training expenses & Expenditure including boarding, lodging & return Air Tickets of 02 x POFs personnel for 01 x week in the field of operation, maintenance and inspection of the machine will be borne by the Supplier.
- iii. During stay on site at purchaser's works, supplier's engineers shall train the concerned Production, Maintenance and Instruments personnel for satisfaction & safe use of machine.
- iv. Supplies shall be subject to Pre-shipment Inspection (PSI) and acceptance by the designated team.
- v. Inspection facilities such as pull test equipment, instruments etc will, however, be provided by the Suppliers in accordance with the relevant specifications attached as Annex-'B'.
- vi. The supplier shall provide assembly protocol during PSI including assembly of Control Panel, Pneumatic System and electrical components.
- vii. The supplier shall inform the purchaser when the machine is ready for dispatch. The machine will be subjected to pre-delivery inspection as per the specifications of the machine and the requirements to produce the components on the machine according to drawing No. SK/COM-1314 (enclosed). The components produced on the machine are required to qualify the gauging, geometric, visual, pull test and accuracy test at Supplier's premises in the presence of rep(s) of Purchaser.
- viii. The machine should clear the capacity test for the welding of components as per drawing no. SK/COM-1314.
- ix. Qty. 50 x Nos. of components are required to be produced on machine. All the components must qualify the requirement of relevant drawings and gauges.
- x. For PSI, input material for components as per drawing No. SK/COM-1314 will be provided by the purchaser.

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- xi. The machine will be despatched only after the supplier receives the pre-shipment trials acceptance certificate issued by the purchaser certifying that the machine has qualified the capacity test and components produced have qualified the inspectional requirements as per relevant drawings.
- xii. Rejected machine will be removed and replaced with the acceptable stores by the Supplier at his own expense.

**14. Installation & Commissioning:**

- i. The machine shall be installed by the supplier. Needed manpower and services will be provided by POF.
- ii. The machine shall be commissioned and trial production shall be carried out by supplier's engineers. Purchaser shall provide required number of operators and technicians for the commissioning and trial production of the machine.
- iii. The supplier is to indicate his total Engineers / Technicians required for installation, commissioning and trial production of the machine. Terms and conditions are to be stated clearly. All expenses, including boarding & lodging, air travel and daily allowances of the Engineers / Technicians are to be borne by the Supplier. Local transportation shall be arranged by the purchaser. The supplier is to indicate the time schedule for the completion of whole project.
- iv. The tooling consumed during trial production run will be borne by the Supplier.
- v. In case the machine could not be commissioned by the OEM, the same will be commissioned by utilizing local available expertise at the risk and cost of the OEM.

**15. Acceptance test:**

Acceptance test will be performed at purchaser premises. The test will necessarily include all production gauges in addition to geometric tolerance checks and visual inspection. This test will be carried out with the technical assistance of the supplier and will comprise successful production of acceptable quality of components as per drawings. The machine will be under trial run for 1 x week. The input materials will be supplied by the Purchaser. Quantity of 500 x components will be welded on machine. Inspection of welded components includes gauging, geometric, visual and pull test as per component drg. No. SK/COM-1314.

**16. Payment Terms & Conditions:**

- i. Payment will be made by means of irrevocable letter of credit. 90% payment will be released on submission of shipping documents including acceptance certificate signed by PSI team confirming satisfactory PSI while balance 10% payment will be released on receipt of machine, inspection & installation, commissioning and satisfactory completion of trial run of the machine at purchaser premises against the final acceptance test certificate by the purchaser at site. All Bank charges incurred in Pakistan in connection with the establishment of LC will be borne by the Purchaser whereas, all Bank charges incurred in connection with drawing of payment including charges for confirmation of LC by the advising Bank/Foreign Bank will be borne by the Supplier. The firm will provide performance bond @ 10% FOB value of contract in the shape of bank guarantee before shipment. The machine after installation and commissioning shall be accepted on firm's warranty/guarantee. The Same warranty will be valid for 12 x months after successful installation & commissioning of the machine.

- ii. Delay penalty will also be imposed @ 1-2% per month of contracted value for the delayed despatch to purchaser and installation & commissioning of machine & production run of the machine beyond the schedule date of final acceptance and will be deducted from balance payment connected with production run.

**17. Delivery Schedule:**

The Spot Welding machine will be delivered as per following terms:

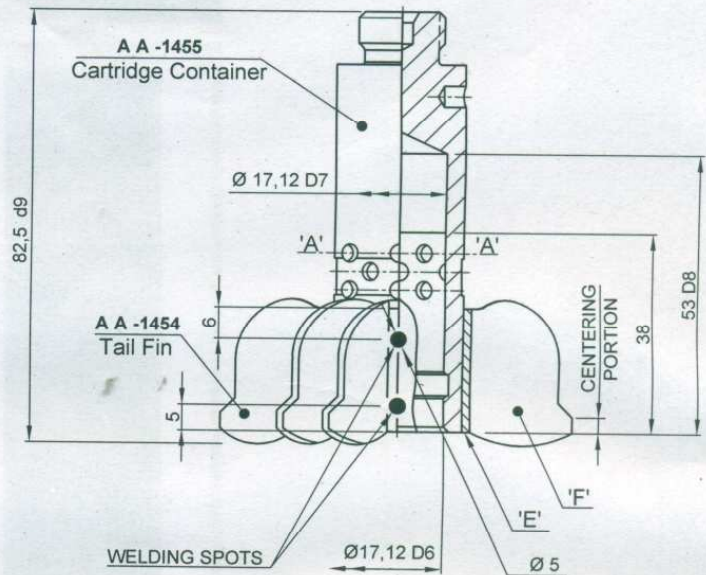
- i. Machine will be supplied within 12 months after placement of contract.
- ii. The delivery will be on C & F basis to Karachi.

**18. Dispatch of needed materials & Inspection Gauges:**

Materials required to be welded during training and PSI will be supplied by the purchaser along with necessary inspection gauges. However, additional measuring instruments such as micrometers, vernier callipers etc. required at supplier's premises for geometrical tolerance verification will be arranged by the supplier.

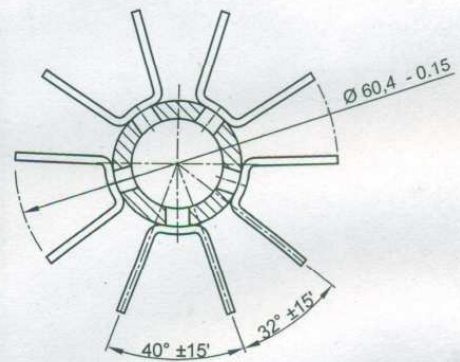
## TAIL PART

Annexure-'B'  
Page 1 of 2



### TECHNICAL REQUIREMENTS

1. The fins should be centrally located with the flash holes of the 1st. row.
2. The face 'E' of fins is allowable to be 0,3mm above or below the face of the cartridge container.
3. For checking parallelism of face 'F' with the center line of the cavity, A max. gap of 0,25mm is allowed between the gauge face & face 'F' of the fins.
4. The eccentricity between the centering portion of fin blades & the threads of the container cartridge not to exceed 0,3mm. The eccentricity between the centering portion of the fin blades & cavity not to exceed 0,25mm.
5. Weight of the tail to be  $0,21 \pm 0,008$  Kgs. It is allowed to drill a hole of 8,5mm dia. to a depth of 7mm on the face of the threaded end for weight adjustment.
6. The depth & dia. of the cavity shall be checked after painting with a plug gauge. The dia. of working portion of the plug gauges should be  $17,05 - 0,005$  mm after wearing it should not be less than 17,04 mm. The length of the working portion is to be 50 mm.
7. A fin should not get detached when subjected to pull test under elongational load of 375 KG.



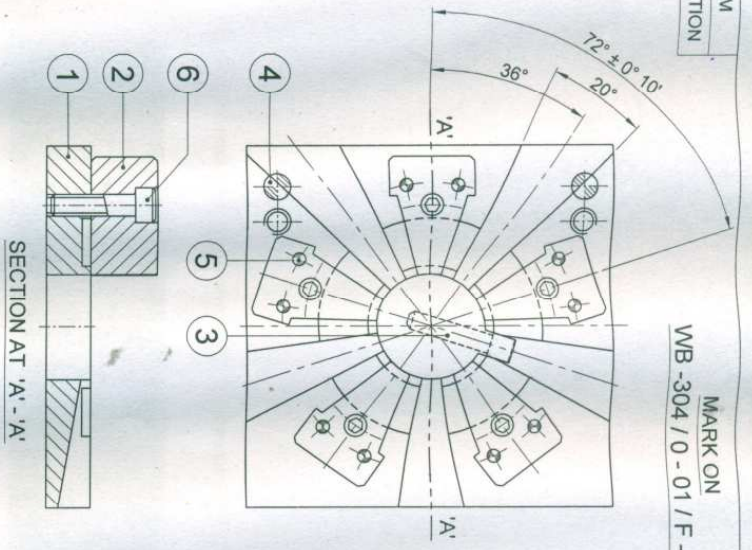
SECTION 'A A'

SK / COM -1314

ALL DIMENSIONS ARE IN MM  
THIRD ANGLE PROJECTION

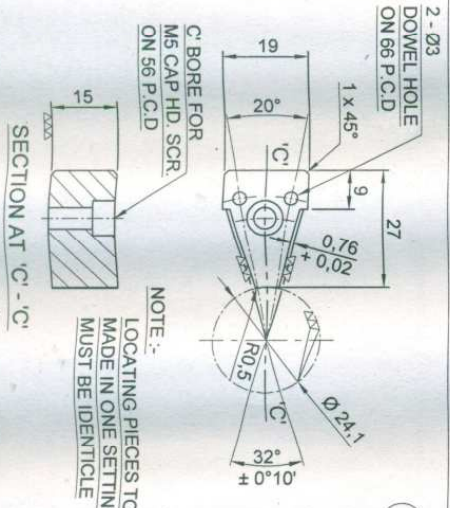
Annexure-'B'  
Page 2 of 2

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WB-304 / 0-01 / F-3

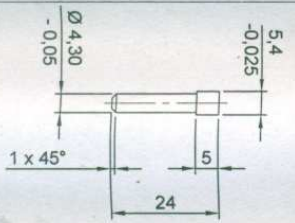


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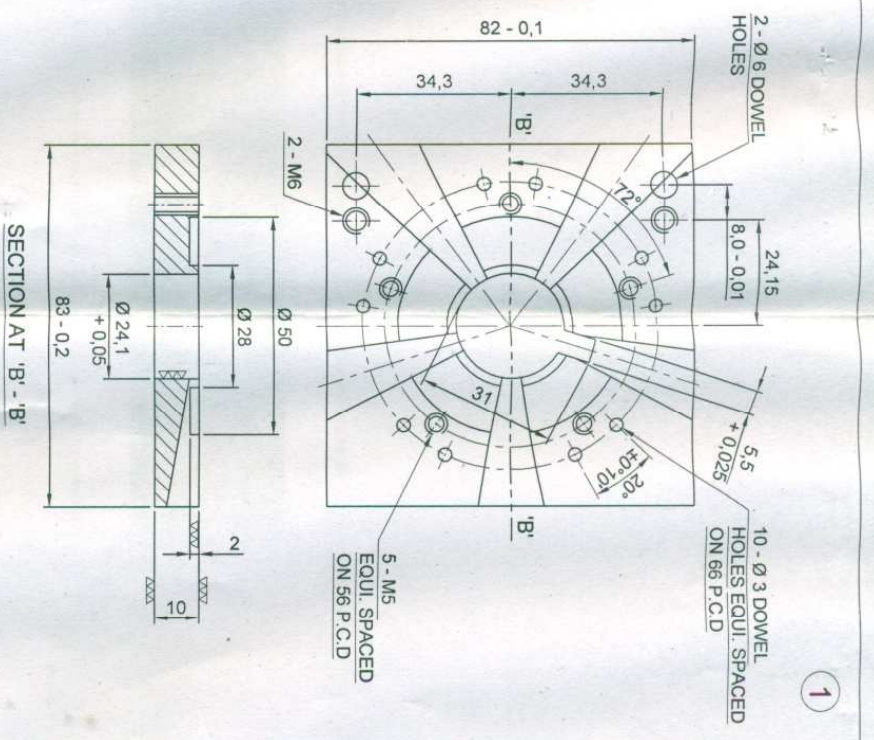


NOTE:-  
LOCATING PIECES TO BE  
MADE IN ONE SETTING AND  
MUST BE IDENTICAL



WELDING FIXTURE

SK/COM-1733



1

**SPECIAL CONDITIONS**

a) **TO BE FULFILLED AT THE TIME OF BIDDING / REPLY OF TENDER ENQUIRY**

- i. It may be confirmed that you will be able to obtain export license from your Govt. in the event of successful bidding.
- ii. OEM/authorized suppliers with company profile/brochure.
- iii. Performance of such type of machines supplied to various customer.
- iv. Backup service in Pakistan.
- v. Item wise price of machine, equipment & accessories alongwith Electrical, Electronic and Mechanical Spare Parts for 02 years should be quoted as part of commercial offer (Part-II). Essential maintenance & operational spares shall be supplied and ensure backup support for provisioning of spares for 10 years.
- vi. Reference Column 2.2 of Tender Enquiry Form No. 1262, any indication whatsoever of the price in Part-I of the quotation will render it invalid and void.
- vii. The supplier must fill in the Proforma of Technical Comparison enclosed as Annexure-‘D’ to the specifications and submit alongwith the offer for our instant evaluation of the offer and enclose it alongwith technical offer.
- viii. The supplier will provide necessary brochures and technical literature alongwith Part-I of the offer (Technical Offer).
- ix. POF shall deal directly with the manufacturer / supplier of the machine. In case of manufacturer / supplier chooses to have a local agent, payment of agent’s commission etc., shall be supplier’s responsibility and shall not be included in the prices quoted in Part-II of the offer (Commercial Quotation).

b) **CONDITIONS TO BE PART OF FORMAL CONTRACT AND MAY BE KEPT IN VIEW BEFORE BIDDING**

- i. 90% payment will be released through LC against shipping documents, including Acceptance Certificate signed by PSI team, confirming satisfactory pre-shipment inspection.
- ii. 10% payment will be released through LC on receipt of machine, inspection & installation, commissioning and satisfactory completion of trial run of the machine at purchaser premises against the final acceptance test certificate issued by the purchaser at site.
- iii. Item wise price of machine, equipment & accessories alongwith Electrical, Electronic and Mechanical Spare Parts for 02 years should be quoted as part of commercial offer (Part-II). Essential maintenance & operational spares shall be supplied and ensure backup support for provisioning of spares for 10 years.

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- iv. The machine will be installed & commissioned at POF by the supplier's Engineer(s). The machine will be commissioned and trial production will be carried out by suppliers Engineers. The tooling consumed during trial production run will be borne by the supplier. The machine will be under trial for 01 x week. The input materials will be supplied by the Purchaser. Quantity of 500 x components will be welded on machine. Inspection of welded components includes gauging, geometric, visual and pull test as per component drawing No. SK/COM-1314. POF will pay 75 % of commissioning charges in foreign exchange through LC after successful installation & commissioning of the machine against Commissioning Certificate jointly signed by Commissioning Engineer(s) of the supplier, user of the machine & counter signed by MD-AA. The remaining 25 % of the commissioning charges will be paid in Pak. Rupees on successful commissioning of the machine to the Commissioning Engineer(s) to meet their boarding & lodging charges during their stay at POF-Guest House. Any amount incurred over and above the said amount during boarding & lodging at POF-Guest House will be paid by the Commissioning Engineer(s) themselves against claim bills at the time of check out. Travelling expenses for Commissioning Engineer(s) for both sides will also be borne by the supplier.
- v. The manufacturer/supplier will undertake regarding backup support for provisioning of Spares for 10 years maintenance after commissioning of the machine as and when required by POF. The undertaking shall be furnished by the firm in the shape of a certificate to be issued on the letter head of the firm alongwith the accepted copies of the contract (to be returned to the buyer).
- vi. Four sets of documentation in English language inclusive of details of operating & maintenance manuals, details of electric schematics and complete data of machine are required to be provided with the machine. These manuals must include comprehensive instructions regarding Operation and Maintenance containing detailed Electrical, Electronic, Pneumatic and Hydraulic Diagrams / Assy. & Sub-Assy. drawings in so far these are related to maintenance of the machine supplied. The maintenance manuals may also include planned preventive maintenance program based on number of Operating Hours or Time Span.
- vii. The manufacturer / supplier will ensure supply of foundation drawings and installation manual to the consignee at least two months before the shipment of the machine.
- viii. The manufacturer / supplier will train at his premises 02 x POF personnel in the field of welding fixture setting, operations of machine, inspection, mechanical, electrical and electronic maintenance of machine at supplier's and its sub contractor's premises, free of cost for 01 x week.
- ix. Pre-shipment inspection / acceptance of machine at firm's premises will be conducted by the designated team. The inspection team besides others will particularly carry out trial run of the machine and it will be considered satisfactory subject to production of 50 x Nos. of components as per drawing No. SK/COM-1314 on the machine. All the components must qualify the requirement of relevant drawings and gauges.
- x. The material required to be welded during training & PSI will be provided by the purchaser as per component drawing No. SK/COM-1314 alongwith necessary inspection gauges. However, additional measuring instruments such as micrometers, vernier callipers etc. required at supplier's premises for geometrical tolerance verification will be arranged by the supplier.

- xi. Air tickets for both sides, boarding & lodging, inland transportation and provisioning of payment of 30 % Daily Allowance in respect of training & PSI teams would be the responsibility of the supplier.
- xii. The manufacturer/supplier will provide Warranty / Guarantee Certificate of the machine & other accessories alongwith the accepted copies of the contract which shall remain valid for a period of 12 x months after the successful installation & commissioning of the machine at POF, Wah Cantt.
- xiii. The manufacturer/supplier will provide performance bond in the shape of Bank Guarantee @ 10% of net FOB (LC) value which will be valid for 12 x months after the date of expiry of letter of credit. The same will be got extended upto 12 x months after successful installation & commissioning of the machine accordingly.
- xiv. The spare parts will be properly tagged with Part No. / Serial No. for identification.
- xv. The machine must be packed in seaworthy packing and protected adequately & appropriately to the mode of despatch against damages from water or other substances during sea voyage and over land journey to withstand the rough handling involved in transit and provide proper preservation of the machine while held in storage by the consignee.
- xvi. The machine must include complete tool kit with standard spanners, Allen keys etc. for running & planned maintenance of machine.
- xvii. POF will hold no responsibility for any damage occurred during shipment of the machine.
- xviii. The supplier will provide on letter head duly signed and stamped declaration of fees, commissions & brokerage etc. alongwith the accepted copies of the contract.

Signature of the Supplier:

Name\_\_\_\_\_

Status in the Firm\_\_\_\_\_

Address\_\_\_\_\_

\_\_\_\_\_

Place\_\_\_\_\_

Date\_\_\_\_\_



**TECHNICAL COMPARISON**  
**(TO BE FILLED BY SUPPLIER)**

<b>SR. #</b>	<b>TENDER SPECIFICATIONS</b>	<b>OFFERED SPECIFICATIONS WITH REFERENCE TO PAGE NO. OF QUOTATION</b>