



GOVERNMENT OF PAKISTAN
PAKISTAN ORDNANCE FACTORIES
TENDER ENQUIRY.

To

M/s _____

Dear Sirs,

Reference: **TENDER ENQUIRY #004-FP-B-50-SCM(R&D) -Capt-Pur-III**
DT: 10.12.2020

You are requested to submit quotations for the items(s) noted in the Schedule to the Tender as per **PPRA Rule 36(b)** i.e. Signal Stage Two Envelope Offers should be sent duly sealed in an envelope. Please note the following instructions for filling the tender:-

1. **SUBMISSION OF TENDER**

1.1 Tenders will be **opened at 1200 hours on 21-01-2021 and must reach Bid Center Adjacent to Rabita Hall on or before 1130 hour upto due date.** 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 #: **004-FP-B-50-SCM(R&D) -Capt-Pur-III**
DT:10.12.2020

Tender to be opened on: **21-01-2021**

Address as follows: **GM - Purchase, BID Canter**
POF Wah Cantt - Pakistan.

1.3 If envelope does not indicate reference of T.Es or received late the same may be returned un-opened.

2. **GENERAL INSTRUCTIONS REGARDING PREPARATION OF QUOTATIONS & Evaluation Criteria**

2.1 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 As per **PPRA rule 36 (b)** single stage two envelope procedure will be applied for open competitive bidding. For Plant and 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 envelopes should be inscribed with: Part I "Technical Quotation without price" and

Part II "Commercial Quotation with Price."

- 2.3 The quotation must be extendable if required but must remain valid for, at **least 120 days** from the date of opening of tenders.
 - 2.4 Procurement will be made strictly as per PPRA rules and contract will be placed in favour of lowest evaluated bidder.
 - 2.5 In the event of non-acceptance of offer, intimation may be given to the bidders on their request.
 - 2.6 Conditional offers or alternative offers are likely to be ignored.
 - 2.7 Quotations should be based on F.O.B. 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.
 - 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 Suppliers will render necessary information regarding hazardous effects on environment, of the materials/products supplied by them, in their quotations and shipping/Dispatch documents.
 - 2.12 If the requisite information is not furnished on the T.E form or offer received is not in conformity with the requirement of the T.E or received late/after due date such offer shall be ignored.
 - 2.13 Special conditions must be carefully studied and conformed.
3. **INSPECTION**
- 3.1 a). Inspection of offered Machine for the required function will be verified by **03 x POF officials at manufacture's premises before the acceptance of store. A comprehensive training for the 03 x officials abroad for 03 working days** is required for operation, calibration, installation, troubleshooting and maintenance of the machines. All technical knowhow is essential. Seller will afford all the expenses including air tickets, boarding, loading and inland transportation of visiting team.
 - b) The contractor shall (at his own expense) provide all facilities that may be necessary to carry out tests on the offered machine as per specification of the contract and to inspect calibration of machines and all measuring devices of the same as per requirements of ISO/IEC 17025.

c) The contractor shall provide (without any extra charge) required materials, standard test specimens, tools, labor and assistance, which the inspectors may demand for the test and inspection. The contractor shall permit to repeat the test/inspection as per satisfaction of inspectors.

3.2 Where considered necessary by the Purchaser, stores may be obtained on Warranty/Guarantee, subject to inspection on receipt. Rejected stores will be removed and replaced with the acceptable stores by the Supplier at his own expense, within a specified time.

3.3 **TENDER SAMPLE.** Where required offer must accompany tender sample strictly according to the description given in tender Enquiry. Offer not accompanied by tender sample will NOT be entertained excepting the established and reputable firms who have either previously satisfactorily supplied the same or similar stores or have submitted an acceptable samples thereof against previous T.E.

4. **ACCPTANCE 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. 2Procuring 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. 3Notice 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 bidders will provide Performance Bond at the rate upto **10% of F.O.B.** value of contract in favour of the Controller Military Accounts (CMA) POF 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 scheduled bank in Pakistan. The **Performance Bond shall be furnished within 45 days** from the date of opening of Letter of Credit. It shall be valid for a period of 12 months after the date of expiry of letter of credit. If the Performance Bond is not furnished within the prescribed time of 45 days, the Purchaser reserves the right to:

i. Impose penalty @ 1 % per month of the value of CDR/BG.

(Clause-4.2 (a i) is not applicable in case of procurement of Plant / Equipment / Machinery items)

OR

ii. 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.

4.4 **PAYMENT**

Payment will normally be made by means of an irrevocable letter of credit. Unless otherwise stated **80%** payment will be released on submission of Dispatch documents (including acceptance certificate issued by PSI team duly signed by the firm) to Bank while balance **20%** payment will be released on receipt, installation / commissioning, successful trial and final acceptance of store/machine by the competent authority i.e. Director R&D and certificate to this effect issued by Dir SCM.

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

5 **SECURITY OF INFORMATION**

The tendered 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.

6 **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.

Note: Offers/bids through E-Mails & Fax are not acceptable.

Only one competitive offer/bid must be submitted on firm's original letter head pad through Mail/Courier.

Yours faithfully,

(Gohar Kamal Ayub)
DIRECTOR Supply Chain Management
PAKISTAN ORDNANCE FACTORIES
WAH CANTT, PAKISTAN

Contact Info:

☎ 051-9055-22269,21087,21088

Fax: i. 051-9271400
ii. 051-9314100

Email: procurement@pof.gov.pk

PAKISTAN ORDNANCE FACTORIES**SCHEDULE TO TENDER NO. 004-FP-B-50-SCM(R&D) -Capt-Pur-III****DT: 10.12.2020****(1) FOR Plant & Machinery:-**

(1)	(2)	(3)	(4)	(5)		(6)
<u>Item No.</u>	<u>Description with Specs. etc.</u>	<u>Unit</u>	<u>Qty</u>	<u>Price per Unit</u>		<u>Delivery Date/Period</u>
				<u>FOB or C & F</u>		
				<u>In Figures</u>	<u>In Words</u>	
1.	Spring fatigue testing Machine Specification Attached As per Annexure "A"	No.	01			06 Months or earlier after opening of LC
2.	Spring Torsion Testing Machine Specification Attached As per Annexure "A"	No.	01			06 Months or earlier after opening of LC

(2) Special Conditions

- i. Commercial offers will be opened of those bidders who will qualify in technical evaluation.
- ii. Contract will be placed in favour of lowest evaluated bidder in the light of PPRA rules as per POF Contract format POF-1282 and other terms and conditions mutually agreed between POF and the contractor / firm.
- iii. The supplier will submit an undertaking to ensure availability / supply of spares for machine upto a period of 10 years.
- iv. Obtaining of Export permit from the concerned Govt. will be the responsibility of the firm / bidder. Non issuance of Export permit from the country of origin shall not constitute "**Force Majure**"
- v. Installation / commissioning, successful trail and local onsite training (to POF personnel) will be arranged by the supplier.
- vi. Local agent in Pakistan for after Sales Service.
- vii. Change of Beneficiary / Title of contract will not be allowed after T.E opening.
- viii. Firms submitting their offers on C&F basis should also specify freight charges separately.
- ix. Accessories, Spare Parts, and Optional Items should be quoted indicating their rates separately.

(3) Undertaking:-

Should our offer be accepted, we hereby undertake to supply the stores/render the services contracted on the basis of General 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.

Signatures of Tenderer

Place
Date
Name
Position
Address
Income Tax G.I.R.No.

1. Technical Specifications for Spring Fatigue Testing Machine

- a. **Model:** China Materials Testing Equipment IE Corporation, PLS-15 Model or equivalent
- b. **Load Frame Specs:**
 - (1) Type: Door Type
 - (2) Upper Beam: Hydraulic cylinder up/down, adjustable
 - (3) Rack Stiffness: 3.0×10^8 N/m
 - (4) Load frame structure: Dual columns with actuator on the top or at the bottom
 - (5) Test space: 700 mm
 - (6) Space between columns: 500 mm
 - (7) Dimensions of load frame: 670 x 620 x 2200 (mm)
 - (8) Specimen clamping: Hydraulic grip
- c. **Hydraulic Servo Actuator:**
 - (1) Sealing method: High speed servo Glys ring + Sterling + support ring.
 - (2) Electro-hydraulic servo-valve: 2 stage servo valve flow rate 36 L/min.
 - (3) Measuring accuracy in load: $\leq \pm 0.5/1$ from 2 % -100 % of F.S.
 - (4) Measuring accuracy in displacement: $\leq \pm 0.5/1$ of F.S.
 - (5) Measuring accuracy in deformation: $\leq \pm 0.5/1$.
 - (6) Actuator dia of rod/cylinder: $\text{Ø}45/60$ mm.
- d. **Hydraulic Forcing Chuck and Tensile:**
 - (1) Round sample clamping range: $\text{Ø}1$ mm – $\text{Ø}100$ mm.
 - (2) Flat sample clamping range: 2 mm-15 mm (Thickness).
 - (3) Specimen Clamping: Hydraulic grip.
 - (4) Crosshead: Hydraulic lock and test space adjusted by hydraulic elevating actuator.
 - (5) Configure a set of compression test attachments (platen dia 200 mm).
- e. **Constant Pressure Servo Pump:**
 - (1) Filtering accuracy: 3 μ .
 - (2) Configure the direct water cooler to be installed on the return line.
 - (3) Configure two sets of hydraulic forced chuck hydraulic control valve sets. Control the upper/lower forced chuck to hydraulically clamp.

f. Piping System:

- (1) Oil separator to moving beam hose, 1 set, length 3m.
- (2) Oil separator to upper chuck hose, 1 set of oil and oil return, length 3 m.
- (3) Oil separator to lower clamp high pressure hose, 1 set of oil and oil return length, length 1.5 m

g. Controller:

- (1) Mode: Force, displacement / deformation full digital PID closed-loop control
- (2) Main test wave forms: Sine wave, square wave, triangular wave, trapezoidal wave, ramp wave, combination waveform, static test oblique wave etc.
- (3) Hydraulic control: 1 A, DC 24 V.
- (4) Frequency: 0.01 - 50 (Hz).

h. Attachments for Testing:

- (1) Solenoid valve: 1 set
- (2) Oil filter: 1 piece
- (3) Special tools: 1 set

2. Compulsory Tests:

- a. Stiffness testing of springs
- b. Static performance testing.
 - (1) Static load range: -15000 N to +15000N.
- c. Dynamic performance testing.
 - (1) Dynamic load range: -10000 N to +10000N.
- d. Fatigue testing of springs with following specifications.
 - (1) Outer diameter: 2 mm to 100 mm.
 - (2) Compression free length: 700 mm max.
 - (3) Extension free length: 600 mm max.
- e. Misc spring performance tests.

3. Measuring and Analyzing Software (Latest Version):

- a. Latest version should be Windows based and user-friendly with unlimited reinstallation option on PC.
- b. Precise measurement of values, their mean and standard deviation.
- c. CDs (compact disks) containing latest version of measuring and analyzing software, MS Windows(R), drivers for PC hardware's and anti-viruses.
- d. Should have facility of backup & recovery of data.
- e. Provision of facility for online upgradation, trouble shooting and installation of software.
- f. Data transfer/ communication through USB or RS 232 serial.
- g. User password authentication.
- h. Printing of test report as per purchaser's format with monogram.
- i. Software installation and configuration manual.

4. Hardware:

- a. LED 21 inch or higher.
- b. PC (core i7 series 3.2 GHz or Higher), LAN, VGA, USB ports, Sound card, built in.
- c. Hard Disk: 1 TB SATA HDD (Compatible).
- d. Ram: 4 GB or higher (Compatible).
- e. HP Color LaserJet Pro MFP M281cdw (T6B83A) or equivalent.
- f. Latest version of MS Windows (R), Drivers of PC hardware, anti-virus and USB security control.

5. Spares:

- a. 02 years essential maintenance and operational spares are required with machines. Firm shall provide list of the same with quantity and parts numbers with its offered quotations.
- b. The firm will also provide complete catalogue/list of spares along with part numbers.
- c. The firm will provide specification of all types of greases, Oils, lubricants etc if required to be used in the machine indicating source of supply of these items.

6. Technical Literature:

- a. Operating Manual.
- b. Service/Maintenance manual including trouble shooting techniques.
- c. Calibration certificates of machines & other measuring devices, traceable to National International standards, as per requirement of ISO-17025 (Qty: 01 Set each)

7. Backup Support:

- a. Back up support for service and maintenance for at least 15 years.

8. Warranty:

- a. 02 years warranty/guaranty after successful installation and commissioning of the machines.

9. Pre-shipment Inspection & Training:

- a. Inspection of offered machines for the required function will be verified by 03 x POF officials at manufacture's premises before the acceptance of store. A comprehensive training for the 03 x officials abroad for 03 working days is required for operation, calibration, installation, troubleshooting and maintenance of the machines. All technical knowhow is essential. Seller will afford all the expenses including air tickets, boarding, lodging, loading and inland transportation of visiting team.
- b. The contractor shall (at his own expense) provide all facilities that may be necessary to carry out tests on the offered machine as per specification of the contract and to inspect calibration of machines and all measuring devices of the same as per requirements of ISO/IEC 17025.
- c. The contractor shall provide (without any extra charge) required materials, standard test specimens, tools, labor and assistance, which the inspectors may

demand for the test and inspection. The contractor shall permit to repeat the test/inspection as per satisfaction of inspectors.

10. Installation / Commissioning:

- a. The installation and commissioning of machines as well as training of POF officials on site for 05 working days shall be responsibility of supplier at his own cost.

11. Payment Terms & Conditions:

- a. 80% payment on receipt of shipment documents on FOB.
- b. Remaining 20% on payment after satisfactory installation and commissioning of machine at purchaser's premises.

1. Technical Specifications for Spring Torsion Testing Machine

- a. **Model:** LIANGONG Group ASTM Testing Equipment Co. Ltd, CHINA NDW 500 model or equivalent
- b. **Main Function:** Static torsion performance test.
- c. **Product Composition System**
 - (1) Test host: It should adopt horizontal structure, high-precision guide rail + slider, good rigidity and high precision.
 - (2) Transmission system: It should consist of servo motor, servo drive and cycloidal speed reduction system.
 - (3) Force measuring system: It should consist of high-precision torque sensor and American AD chip.
 - (4) Control system: The test force measurement control system should consist of high-precision load sensors, measurement amplifiers, A/D conversion
- e. **Technical Parameters**
 - (1) Style: Horizontal
 - (2) Maximum test force: -500 Nm to +500 Nm.
 - (3) Test force resolution: 0.01 Nm.
 - (4) Accurate measurement range: 1% FS - 100% FS.
 - (5) Measuring capability: 1% to 100%.
 - (6) Spring measuring tolerance capacity: $\leq 1\%$ (from 2% of each full range).
 - (7) Relative error of test force indication: $< \pm 0.5\%$
 - (8) Test force indication repeatability error: $< 0.5\%$
 - (9) Torque resolution: $1/\pm 300,000$ (the resolution of the whole process is unchanged)
 - (10) Torque direction: positive and negative angle measurement range: $0 - 360^\circ$.
 - (11) Angle resolution: 0.01° .
 - (12) Relative error of corner indication: $< \pm 0.5\%$.
 - (13) Corner indication repeatability error: $< 0.5\%$.
 - (14) Torsion attachment: three-jaw chuck
 - (15) Test stroke: 500mm
 - (16) Torque speed control range: $0.1^\circ/\text{min} \sim 720^\circ/\text{min}$ stepless speed regulation.
 - (17) Power supply: 220V, 50Hz
- f. **Features**
 - (1) Automatic display: During the test, the test force, peak value and test status are displayed in real time.
 - (2) Sample for testing: 1 mm to 100 mm.

- (3) Automatic correspondence: the angle and torque automatically correspond during the experiment.
- (4) Automatic operation: input test parameters, which can automatically complete the test process.
- (5) Automatic calculation: After the test is completed, the torsional strength can be automatically calculated
- (6) Closed-loop control: open data connection interface, closed-loop control of torque, corner (or torsion, angle etc).
- (7) Dynamic curve: dynamic curve can be displayed during the test.
- (8) Protection function: In addition to the overload protection function, there are overcurrent and overvoltage protection functions.
- (9) Batch test: samples of the same parameters can be completed in sequence after one setting.
- (10) Curve traversal: After the test is completed, the curve can be re-analyzed.
- (11) Curve selection: select the torque-time, torsion angle-time, torque-torsion angle and other curves for display and printing.

g. System Configuration

- (1) One host.
- (2) One motor.
- (3) A set of servo drives.
- (4) Two pairs of precision guides.
- (5) Two pairs of precision sliders.
- (6) Set of deceleration system.
- (7) High-precision bidirectional torque sensor.
- (8) An angle encoder.
- (9) A set of sprayed outer casings.
- (10) One power cord and one data cable.
- (11) A set of anchor bolts.
- (12) A set of test tools.
- (13) Reverse the set of attachments.
- (14) One copy of the manual, certificate, software manual, and packing list.
- (15) A set of MUC capture card systems
- (16) A set of control software (including CD)

2. Main Test Content

- a. Torsion angle of material or component
- b. Torsional torque of materials or components
- c. Curve analysis of materials or parts
- d. Torsion time and speed of materials or parts

3. Measuring and Analyzing Software (Latest Version):

- a. Latest version should be Windows based and user-friendly with unlimited reinstallation option on PC.
- b. Precise measurement of values, their mean and standard deviation.
- c. CDs (compact disks) containing latest version of measuring and analyzing software, MS Windows(R), drivers for PC hardware's and anti-viruses.

- d. Should have facility of backup & recovery of data.
- e. Provision of facility for online upgradation, trouble shooting and installation of software.
- f. Data transfer/ communication through USB or RS 232 serial.
- g. User password authentication.
- h. Printing of test report as per purchaser's format with monogram.
- i. Software installation and configuration manual.

4. Hardware:

- a. LED 21 inch or higher.
- b. PC (core i7 series 3.2 GHz or Higher), LAN, VGA, USB ports, Sound card, built in.
- c. Hard Disk: 1 TB SATA HDD (Compatible).
- d. Ram: 4 GB or higher (Compatible).
- e. HP Color LaserJet Pro MFP M281cdw (T6B83A) or equivalent.
- f. Latest version of MS Windows (R), Drivers of PC hardware, anti-virus and USB security control.

5. Spares:

- a. 02 years essential maintenance and operational spares are required with machines. Firm shall provide list of the same with quantity and parts numbers with its offered quotations.
- b. The firm will also provide complete catalogue/list of spares along with part numbers.
- c. The firm will provide specification of all types of greases, Oils, lubricants etc if required to be used in the machine indicating source of supply of these items.

6. Technical Literature:

- a. Operating Manual.
- b. Service/Maintenance manual including trouble shooting techniques.
- c. Calibration certificates of machines & other measuring devices, traceable to National International standards, as per requirement of ISO-17025 (Qty: 01 Set each)

7. Backup Support:

- a. Back up support for service and maintenance for at least 15 years.

8. Warranty:

- a. 02 years warranty/guaranty after successful installation and commissioning of the machines.

9. Pre-shipment Inspection & Training:

- a. Inspection of offered machines for the required function will be verified by 03 x POF officials at manufacture's premises before the acceptance of store. A comprehensive training for the 03 x officials abroad for 03 working days is required for operation, calibration, installation, troubleshooting and maintenance of the machines. All technical knowhow is essential. Seller will afford all the expenses

including air tickets, boarding, lodging, loading and inland transportation of visiting team.

- b. The contractor shall (at his own expense) provide all facilities that may be necessary to carry out tests on the offered machine as per specification of the contract and to inspect calibration of machines and all measuring devices of the same as per requirements of ISO/IEC 17025.
- c. The contractor shall provide (without any extra charge) required materials, standard test specimens, tools, labor and assistance, which the inspectors may demand for the test and inspection. The contractor shall permit to repeat the test/inspection as per satisfaction of inspectors.

10. Installation / Commissioning:

- a. The installation and commissioning of machines as well as training of POF officials on site for 05 working days shall be responsibility of supplier at his own cost.

11. Payment Terms & Conditions:

- a. 80% payment on receipt of shipment documents on FOB.
- b. Remaining 20% on payment after satisfactory installation and commissioning of machine at purchaser's premises.