

SETSCO SERVICES PTE LTD

**INVITATION TO TENDER
FOR**

**THE SUPPLY, INSTALLATION, COMMISSIONING, MAINTENANCE, AND
TRAINING OF FATIGUE TESTING MACHINE
(100kN, 250kN & 500kN)**

1. SCOPE OF CONTRACT

- 1.1 The contract shall include the supply, installation, commissioning, maintenance, and training for Fatigue Testing Machine at SETSCO Services Pte Ltd at No. 531 Bukit Batok St 23, Singapore 659547.
- 1.2 Any other components which enable the proposed fatigue machine to work efficiently but have not been described in the tender specifications shall be deemed to be included in the tender sum. The Contractor is deemed to have included all additional cost arising from the addition of components and/or additional of steps in programming for the proposed testing system in the contract rates/price submitted and is deemed to have waived all claims for loss of profit or other consequential loss and expenditure.
- 1.3 The Contractor shall supply all necessary tools, machineries, equipment, materials, labour, transport, and other necessary provisions for the effective execution of the Works in accordance with the Specifications and including any oral/written instructions pertaining to the Works issued by the SETSCO representatives to the Contractor. The Contractor shall ensure that there is adequate administrative and supervisory support to enable satisfactory execution of this Contract. All costs and expenses relating to the provision of tools, machineries and equipment, provision of administrative and supervisory support, provision of labour and equipment for the execution of the Works in this Contract shall be deemed to have been included in the contract rate/price. The Contractor shall coordinate and cooperate with SETSCO representatives during the execution of the Works.
- 1.4 The Contractor shall submit the breakdown costs based on the attached form of tender.
- 1.5 The Contractor to submit quotes for 100kN, 250kN, 500kN Fatigue Machine separately.

2. TECHNICAL REQUIREMENTS FOR FATIGUE TESTING MACHINE

2.1 COMPULSORY REQUIREMENTS

- 2.1.1 Fully Automated Resonant Fatigue machine with operating software and computer
- 2.1.2 Force range: Supplier to quote for 3 options: 100kN, 250kN & 500kN (Can be three different machines)
- 2.1.3 Material to be tested : Rebar and Coupler of Diameter ϕ 8mm up to ϕ 50mm
- 2.1.4 Frequency range : 1Hz – 200Hz
- 2.1.5 Working Height : Min. 1200mm
- 2.1.6 Compliance to ISO 15835, SS 560, ISO 15630 & other National Standards
- 2.1.7 Accuracy of load measurement better than : 0.5%
- 2.1.8 Gripping device for diameter up to ϕ 50mm
- 2.1.9 Gripping Device for Flat specimens up to 25mm thickness
- 2.1.10 All power plugs and/or adaptors shall comply with Singapore safety requirements. All instruments supplied shall be able to operate at a voltage and frequency of 230V supply voltage and 50-60 Hz respectively.

2.2 Supplier Support Evaluation

- 2.2.1 Services support - engineer report to site within 2 working days after being informed (if unable to meet, kindly state appropriate response time in table 5)
- 2.2.2 Parts support – supplier shall have all critical parts in Singapore to support repair services for first 7 years after purchase

2.3 Computer and Printer minimum requirement (need to include with IC unit)

- 2.3.1 Minimum i5 processor or equivalent
- 2.3.2 Ram at least 16GB
- 2.3.3 Windows 10 Pro or higher
- 2.3.4 Microsoft office

3. Warranty period (will be included in long term cost justification)

4. REQUIREMENTS FOR INSTALLATION SERVICES PROVIDED

4.1.1 The Contractor shall comply with the WSHA and submit relevant Risk Assessment form and any safety certificates required for the Works to SETSCO's Safety Officer, before installation.

5. TRAINING & DOCUMENTATION

5.1 The Contractor shall provide training to SETSCO staffs on how to operate and maintain the proposed Resonant Fatigue Testing Machine

5.2 The contractor shall provide the following documents to SETSCO together with delivery of equipment;

- i) operating manual;
- ii) technical manual;
- iii) manual on troubleshooting and maintenance;
- iv) technical drawings; and
- v) list of recommended spare parts, consumables, and their costs.

6. FIRM PRICE CONTRACT

6.1 The tender shall be awarded on a firm price basis and the contract rates as quoted by Contractor and accepted by SETSCO shall remain firm for the duration of the Contract Term.

7. ACCEPTANCE OF TENDER

7.1 SETSCO shall be under no obligation to accept the lowest or any tender.

8. WARRANTY PERIOD and Preventive Maintenance Services

8.1 The Contractor shall provide at least one-year warranty Period for the installed fatigue machine, included all parts, related accessories, software and computer with effective from the date of fully hand over to end user after installation, commission, training provided, and method set-up/transferred. Warranty shall include replacement parts and labour cost. Longer warranty period will be added advantage and consider under long term cost evaluation.

8.2 Contractor shall provide 1 time free preventive maintenance services after 1 year of installation with PM training to end-user.

9. CONFIDENTIALITY OF INFORMATION

- 9.1 The Contractor is required to adhere to the following Confidentiality clause:
- a) All Confidentiality information released by SETSCO pursuant to this contract shall be used solely for the purpose of this contract. Confidentiality information shall mean and include source codes, intellectual property rights, and information disclosed in whatever form;
 - b) Intellectual Property Right or IPR shall mean patents, internet domain names, database right, rights in know-how and other intellectual property rights and, in each case, whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the World.
- 9.2 The Contractor shall agree and undertake the following:
- a) Not to disclose the Confidential information or any part thereof, to any third party without prior written consent of SETSCO; and
 - b) To return or destroy the Confidential information released to him immediately upon SETSCO's written request.
- 9.3 Once supplier participated in this tender, supplier is agreed adhere mentioned confidential clauses.

10. PAYMENT FOR PROPOSED FATIGUE TESTING MACHINE

- 10.1 Contractor shall submit his invoice upon completion of installation, training, and hand-over to end users at satisfactory over performance of installed fatigue machine against tender specify performance and supplier committed specifications; together with the hand-over report/ installation report. SETSCO's representative shall verify and certify the sum to which the contractor is entitled under the contract.
- 10.2 Payment made is not proof of quality of the works done; henceforth shall not be used to relieve the contractor of his responsibilities.