



## **SECTION 5: SPECIFICATION FOR COMPREHENSIVE SERVICE AND MAINTENANCE OF EIGHT (8) LANES TARGET SYSTEM AND ANCILLARY EQUIPMENT**

### **5.1 GENERAL**

The work covered by this Specification is for the supply of all materials, appliances, labour and necessary incidentals for the service and maintenance of the Eight (8) Lanes Target System and Ancillary Equipment.

All work to be performed under this Specification shall be in accordance with the best commercial practice and must be in strict accordance with this Specification.

### **5.2 WORKMANSHIP AND MATERIALS**

The work described in this Specification shall be performed by workmen skilled in the service, maintenance and repair of the Eight (8) Lanes Target System and shall be executed in accordance with the best commercial practice.

All materials to be supplied in connection with work under this Specification shall be new and unused and shall generally be of the best quality as regards manufacture and performance.

### **5.3 SUPERVISION**

The Sub-Contractor shall have a Supervisor in charge of service, maintenance and repair work to be carried out under this Specification. This Supervisor must be thoroughly competent in supervising the service, maintenance and repair of all types of Eight (8) Lanes Target System and shall be in the direct employ of the Sub-Contractor and acceptable to the Superintending Officer.

### **5.4 SCOPE OF WORK**

All machinery and equipment comprising the complete Eight (8) Lanes Target System and Ancillary Equipment shall be serviced and maintained in strict accordance with the Servicing and Maintenance Schedule as set in Clause 3.5 below.

The Sub-Contractor shall advise the Superintending Officer of any defects in any part or parts of complete Eight (8) Lanes Target System and Ancillary Equipment observed during routine inspection and service and shall repair such defects if required to do so by the Superintending Officer.

The Sub-Contractor shall also provide emergency repair service during normal working hours and also during overtime hours if required to do so by the Superintending Officer.



## 5.5 SERVICING AND MAINTENANCE SCHEDULE

The Contractor shall inspect and service all machinery and equipment comprising the complete Eight (8) Lanes Target System at the above premises at least once a month, except where otherwise directed by the Superintending Officer.

At each such monthly inspection and service of the complete Shooting Range, the work detailed below shall be performed by the Sub-Contractor.

3.5.1 Inspect and check the routine operation of all electrical starters, electrical control gears and ancillary electrical apparatus and

- (a) Clean, adjust and lubricate all bearings, pivots and others moving parts as necessary.
- (b) Clean or renew electric contactors as necessary.
- (c) Renew electrical fuse as necessary.

3.5.2 Check the performance of the complete Shooting Range unit and adjust if necessary.

3.5.3 Instruct the owners responsible for the operation of the unit on correct method of operating and on the maintenance points to be watched.

3.5.4 Report in writing to the Superintending Officer any defect/s observed on any part or parts of the complete Eight (8) Lanes Target System Plant and Ancillary Equipment. The report shall state the cause/s of the defect/s observed, and shall include and estimate of the cost of repairs required.

## 5.6 CONSUMABLE MATERIALS

The Sub-Contractor shall supply the following consumable materials as and when required:-

- (a) All oils and greases required for lubrication of moving parts.
- (b) All pressurized air / gases fan.
- (c) All electric contact points required to replace worn electric contact points
- (d) All electric fuses required to replace blown fuses.

The cost of these consumable materials shall not be charged for separately by the Sub-Contractor, but shall be included in the price quoted by the Sub-Contractor for the service and maintenance of the complete Eight (8) Lanes Target System Plant and Ancillary Equipment.

#### 5.7 REPAIRS

The Sub-Contractor shall repair defects in the complete Eight (8) Lanes Target System on the instruction of the Superintending Officer.

The cost of such repairs shall not be included in the fixed monthly rate quoted by the Sub-Contractor for the service and maintenance of the complete Eight (8) Lanes Target System but shall be charged for separately by the Sub-Contractor.

All repairs on the complete Eight (8) Lanes Target System shall be guaranteed by the Sub-Contractor against defects in workmanship and materials for a period of one year to take effect from date of completion of the repairs. During the guarantee period, the Sub-Contractor shall rectify defects in repairs carried out by him with no additional charge to the government.

#### 5.8 SERVICE AND MAINTENANCE RECORDS

- (a) The contractor shall provide a service and maintenance record book for the complete Eight (8) Lanes Target System being serviced and maintained by him. This record book shall be kept in the owner's room of the Eight (8) Lanes Target System being service and maintained, and brief details of all service, maintenance and repairs carried out on complete Eight (8) Lanes Target System shall be entered by the Sub-Contractor into this book for checking purposes. The address and telephone number of the Sub-Contractor's service station shall also be entered into this record book to facilitate emergency service call.
- (b) The Sub-Contractor shall also keep an accurate detailed record in duplicate of all service, maintenance and repair work carried out by him on the complete Eight (8) Lanes Target System Plant and Ancillary Equipment. This record shall be in the form of a Maintenance/Repair Sheet, and shall be countersigned by the Superintending Officer each time the Eight (8) Lanes Target System and Ancillary Equipment is attended to by the Sub-Contractor.

#### 5.9 RATES FOR SERVICE AND MAINTENANCE

The price for the service and maintenance of the complete Eight (8) Lanes Target System shall be stated by the Sub-Contractor at the time he submits his tender. He shall fill in the column provided under Clause 3.10.

This price shall hold good for the period of **THREE** years commencing from the end of the guarantee period. The Sub-Contractor may be required to enter into the contract for the above period with the Government on the Standard Form of Contract for Service and Maintenance of Eight (8) Lanes Target System (a copy of this Standard Form may be inspected at the office of Pengarah, Cawangan Kejuruteraan Mekanikal, Ibu Pejabat JKR Malaysia, Tingkat 24-28, No.6, Jalan Sultan Salahudin, 50480 Kuala Lumpur).



5.10 **SCHEDULE OF RATES FOR THE COMPREHENSIVE SERVICE AND MAINTENANCE OF THE COMPLETE 25M TARGET SYSTEM AND ANCILLARY EQUIPMENT AFTER WARRANTY PERIOD**

The Tenderer is to note that the prices quoted will be binding in the event that the Government decides to accept either of them immediately after the guarantee period.

These prices should not be subjected to variation for the period of three years after the guarantee period.

**RATES BASED ON CONTRACT PERIOD OF THREE YEARS ONLY**

<b>For Service and Maintenance of the complete Eight (8) Lanes Target System at the above premises in strict accordance with clause 3.5 of the Tender Specifications and for supply of all consumable materials listed in section 3.6 of the Tender Specifications as and whenever required and to provide emergency repair service during normal working hours and overtime hours as required.</b>	<b><u>Charge Per Year</u></b>  <b>RM</b>
---	--

Tandatangan Pentender: \_\_\_\_\_

Nama dan Alamat:  
(Dengan Cop) \_\_\_\_\_  
\_\_\_\_\_

Tarikh: \_\_\_\_\_

Tandatangan Saksi: \_\_\_\_\_

Nama dan Alamat: \_\_\_\_\_  
\_\_\_\_\_

Tarikh: \_\_\_\_\_