

Running Contract Details	
Equipment Name	Gas Chromatograph Model A
Running Contract Valid Till	28-11-2020
Tender Ref No	KMSCL/EP/T281/383/2018
Tendered Quantity	12
Supplier Name	M/s Scientific Enterprises
GST No	32AAIFS7780D1Z4
Installation & Delivery Period	12 Week(s)
Up-time / PM vist	95% & 4 Visits per year
Warranty period	3 Years

Supplier`s Details		
Address	Contact Details	
PB No. 1951 Vytila Kochi â€“ 682019	Contact Person	Deepa
	Phone	
	Mobile No	9447717286
	Email	seqcochin@gmail.com

Item-wise Price Details				
#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	Gas Chromatograph Model A <i>Model & Make : Trace GC 1110 EPC / Thermo FisherScientific</i>	1416000 Incl.GST :18%	99120	1515120
2	Flame Ionozation Detector (FID)	155760 Incl.GST :18%	10903.2	166663.2
3	Wax type capillary column for the analysis of FAME profile of 37 compounds	86376 Incl.GST :18%	6046.32	92422.32
4	Capillary column for analysis of antioxidants such as TBHQ/ BHA/ BHT	40238 Incl.GST :18%	2816.66	43054.66
5	Capillary column for analysis of preservatives such as calcium propionate	40238 Incl.GST :18%	2816.66	43054.66
6	Split / split less injector Glass Liners with glass / quartz wool	25960 Incl.GST :18%	1817.2	27777.2

Item-wise Price Details				
7	O-Rings	3504.6 Incl.GST :18%	245.32	3749.92
8	Split vent trap	9735 Incl.GST :18%	681.45	10416.45
9	Injector Septa	10266 Incl.GST :18%	718.62	10984.62
10	Spare Nuts for columns. Offer rate for one pair	2803.68 Incl.GST :18%	196.26	2999.94
11	Auto sampler vials with cap and septa	24780 Incl.GST :18%	1734.6	26514.6
12	Auto sampler syringes	6962 Incl.GST :18%	487.34	7449.34
		1822623.28	127583.63	1950206.91

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Rate	4 th Year	5 th Year	6 th Year	7 th Year	8 th Year	9 th Year	10 th Year
Gas Chromatograph Model A							
Labour	35,000.00	40,000.00	45,000.00	49,000.00	52,500.00	57,500.00	60,000.00
Comprehensive	70,000.00	80,000.00	90,000.00	98,000.00	1,05,000.00	1,15,000.00	1,20,000.00

Other terms & conditions

1. The supplier shall execute an agreement with the purchaser as per tender conditions (agreement format is given in the tender document).
2. The supplier shall submit performance security amounting to 5% of the value of the supply order.
3. The labour & comprehensive charges of equipment after the completion of warranty period is finalized by KMSCL as mentioned above.
4. Since discount rate is not applicable for equipment under Running Contract of KMSCL, purchase/supply order can be issued directly to supplier at the given rate with tax & other charges (exclusive of KMSCL service charges).
5. If purchase/supply order is issued directly to the supplier, KMSCL service charge need not be paid. But the copy of the said order may be forwarded to KMSCL for information.

Technical Specification

Equipment :Gas Chromatograph Model A

GC Configuration

1. Gas Chromatographic system with Flame ionization detector and an auto sampler capacity of minimum 15 vials or more

2. it should be capable of upgrading with other detectors such as MS,ECD,FPD etc in future

3. Complete system should have electronic control

Column oven

Operating temperature range: Oven operating range must be from Ambient temperature +5 °C to 450 °C or better

Temperature set point resolution - Oven temperature set point resolution must be 0.1 °C or better

Temperature programming ramps: Oven must support 7 oven ramps or better

Oven ramp rates - 50 oC/min or better

Oven cool down - Oven cool down 450 to 50 °C in 8 min or better

Oven power safety - Oven power must turn-off automatically when the lid/door is opened.

Electronic Pneumatic Control

Electronic Pneumatic Control - Pneumatics must be electronic and programmable through inlets to detectors.

Pressure set point precision and control - Pressure set points must be able to be adjusted by increments of 0.01 psi or better

Flow sensors - Flow sensors must have specification for Accuracy: $\leq \pm 5\%$ depending on carrier gas with a constant flow mode

Split / Split less Inlet (S/SL)

Split/Split less Inlet (SSL) - Injection mode with Electronic pneumatic control of carrier, split and septum purge gases, including electronic ON/OFF

Flame Ionization Detector (FID)

Sensitivity - Minimum detectable level (for dodecane):< 1.5pg C/s or Equivalent

Linear Dynamic Range >10⁷ (±10%)

Maximum operating temperature - 450 °C or better

Column -

Column 1.Wax type Capillary column-100 meters length for the analysis of Fatty Acid Methyl Ester (FAME) profile of 37 compounds.

2.Capillary column 30 meters or having suitable length for the analysis of antioxidants such as TBHQ/BHA/BHT.

3.Capillary column suitable for the analysis of preservatives such as calcium propionate.

Accessories

UPS - 5 KVA with sealed maintenance free batteries with minimum one hour back up

Computer - Branded PC with windows OS and GC software, Laser printer etc

Gas cylinders

1.Air-2 nos

2. Hydrogen-2 nos

3. Helium-99.995 % purity -3 nos

It shall also accompany gas filters and linings. Gas Traps- moisture trap, hydrocarbon trap and oxy trap, One regulator/ gas and the installation of the same shall be done by the bidder.

Consumables

Split/split less injector Glass Liners with glass/quartz wool - 10 Nos, O-Rings 10 Nos, Split vent trap- 1 No, Injector Septa- 100 Nos, Spare nuts for columns-4 pairs, Auto sampler vials with cap and septa-500 Nos, Auto sampler syringe(5?l) -2 Nos.

Training

Hands on training should be provided after the installation of the Equipment. Additional training should be imparted as per the requirement. Users' Manual should be provided.

IQ/OQ/PQ must be done after the satisfactory installation of the Equipment.

Should have CE issued by a notified body registered in European Commission