



Running Contract Details	
Equipment Name	HPLC with Fluorescent detector, PDA detector and RI detector
Running Contract Valid Till	07-01-2021
Tender Ref No	KMSCL/EP/T288/219K/2018(R)
Tendered Quantity	11
Supplier Name	M/s Spincotech Private Limited
GST No	33AAFCS9992P1ZC
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	
#83-84 Industrial Estate Perungudi Chennai 600096	Contact Person	S. R. Manivannan
	Phone	044-45678900
	Mobile No	93454 09574
	Email	sales@spincotech.com

Item-wise Price Details				
#	Item Details	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	<b>HPLC with Fluorescent detector, PDA detector and RI detector</b> <i>Model &amp; Make : LC-20D / Shimadzu Asia Pacific Pte Ltd</i>	4085160 Incl.GST :18%	285961.2	4371121.2
2	<b>Pack of 500 vials, complete with septa and cap</b>	5900 Incl.GST :18%	413	6313
3	<b>Spare solvent filters and spares (0.25 micron)</b>	3540 Incl.GST :18%	247.8	3787.8
4	<b>Autosampler syringes</b>	2950 Incl.GST :18%	206.5	3156.5
5	<b>Columns C- 18, 100 mm x 4.6 mm, 0.5 micron</b>	30680 Incl.GST :18%	2147.6	32827.6
6	<b>Columns C- 18, 150 mm x 4.6 mm, 0.5 micron</b>	31270 Incl.GST :18%	2188.9	33458.9
7	<b>Columns C- 18, 250 mm x 4.6 mm, 0.5 micron</b>	37760 Incl.GST :18%	2643.2	40403.2

Item-wise Price Details				
8	Columns C- 8, 100 mm x 4.6 mm, 0.5 micron	37760 Incl.GST :18%	2643.2	40403.2
9	Columns C- 18, Guard Columns	14750 Incl.GST :18%	1032.5	15782.5
		<b>4249770</b>	<b>297483.9</b>	<b>4547253.9</b>

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Rate	4 <sup>th</sup> Year	5 <sup>th</sup> Year	6 <sup>th</sup> Year	7 <sup>th</sup> Year	8 <sup>th</sup> Year	9 <sup>th</sup> Year	10 <sup>th</sup> Year
<b>HPLC with Fluorescent detector, PDA detector and RI detector</b>							
Labour	35,000.00	35,000.00	40,000.00	40,000.00	45,000.00	45,000.00	50,000.00
Comprehensive	2,25,000.00	2,25,000.00	2,40,000.00	2,40,000.00	2,75,000.00	2,75,000.00	3,00,000.00

### **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 :HPLC with Fluorescent detector, PDA detector and RI detector**

All components of the HPLC system should be from the same supplier and software integrated

Quaternary Solvent Delivery System

1. The flow range should be 0.1 to 10 ml/min or better
2. Flow rate accuracy should be 1% or  $\pm 10\mu\text{l}/\text{min}$  or better
3. Flow rate precision should be less than  $\pm 0.07\%$  RSD or better
4. Maximum pressure setting range should be 5000 psi or more
5. The composition precision should be below 0.2% RSD
6. Reservoir tray with 4 solvent bottles complete with fittings

7. Safety functions like leak sensor-High pressure and low pressure must be provided

#### Degassing Unit

1. On line degassing unit should have four channels, online membrane type degasser
2. Minimum four lines
3. Maximum operating flow rate should be up to 10ml/min per channel
4. Degassed four line

#### Auto-Sampler

1. Sample injection volume should be variable between 0.1µl to 100µl in 0.1µl increments or better
2. Injection system should be variable injection volume type with zero sample loss during injection
3. It must be capable of very fast injection time of 50S/sample or better
4. Precision <0.3%RSD of peak areas from 5-100µl or better
5. The carry over must be below 0.01% or better
6. Number of samples to be processed automatically, random access minimum 90 positions or better
7. Vial capacity of at least 1.5ml
8. It should have safety features like leak sensor and automatic rack and vial recognition
9. Operating temperature range ambient
10. Automated operation-controllable through software

#### Column Compartment

1. Temperature range should be 10 degrees below ambient to 60 deg C or better
2. Temperature stability should be  $\pm 1$  deg C or better.
3. Temperature accuracy should be  $\pm 1$  deg C or better
4. Should be able to mount 3 or more columns

#### Fluorescence Detector

1. Light source : Xenon Flash Lamp
2. Maximum data rate: 50 HZ or more
3. Excitation & Emission monochromatic range : 200 nm – 800 nm or better
4. Detection type : Setting and monitoring of excitation emission wavelength
5. Wavelength Repeatability : $\pm 0.25$  nm or better
6. Wavelength accuracy:  $\pm 0.3$ nm or better

#### Diode Array Detector

1. Photodiodes : 512 diodes or more
2. The slit width should be programmable
3. Light Source: Deuterium and Tungsten / Xenon
4. Wavelength range must be from 190nm to 800nm
5. Wavelength accuracy must be  $\pm 1$ nm maximum
6. Data collection Rate : 80 or better
7. Flow cells : Standard flow cell, 10 $\mu$ l or less
8. Wavelength accuracy : $\pm 1$ nm or less (preferred)

#### Refractive Index Detector

1. Detection type : Deflection method
2. Refractive index range: 1.00 – 1.75 RIU
3. Short term noise:  $< \pm 2.5 \times 10^{-9}$  RIU
4. Temperature control : Ambient +5degC to 55 deg C or better
5. pH range : 2.3 to 9.0 or better

#### Software

1. The software should be capable of controlling all parts of HPLC system- instrument control, data acquisition and data processing
2. Original licensed 32-bit (or highest) software to run on windows-7 or latest operating system
3. Multi system capable, original licenses required for adding additional systems/modules should be provided and installed
4. Software should be compatible with all the devices
5. Should be able to process signals from more than one wave lengths
6. Full-fledged reporting facility with customized / flexible reports
7. Software should be user friendly, up gradation of software free of cost
8. Must have MS-office
9. Should have provision for scanning spectra, checking peak purity and parameter validation

#### Computer

1. Suitable software with computer branded (DELL/HP) (Original OS) & Laser Printer should be provided (Monitor 22 inch or more)

#### UPS and Batteries

1. 5KVA UPS with one hour back up should be offered (Compact system preferred)
2. Sealed maintenance free batteries along with rack(to be replaced during warranty period in case of break down)

#### Accessories

1. All calibration standards required for calibration of HPLC (List of standards should be provided)
2. Pack of 500vials,complete with septa cap should be included
3. Spare solvent filters (0.25 micron-10nos. and spares)
4. Auto sampler syringe-3Nos.
5. Spare parts and consumables during warranty period must be supplied
6. All necessary connections and tubing's of HPLC
7. Photo Chemical Reactor/ PHREDPhotolysis Reaction Enhanced Detection System for aflatoxin analysis-2Nos.which ensures quantification limit of 0.5ppb for Aflatoxin B2,B1,G2,G1, Necessary tubing's should be provided.
8. Aflatoxin mix standard kit B2,B1,G2,G1 should be supplied
9. The following high resolution end capped HPLC columns to be quoted
  - i. C-18, 100mm x 4.6mm, 5 microns – 5 Nos.
  - ii. C-18, 150mm x 4.6mm, 5 microns – 10 Nos
  - iii. C-18, 250mm x 4.6mm, 5 microns – 2 Nos
  - iv. C-8, 100mm x 4.6mm, 5 microns – 2 Nos
  - v. C-18 guard columns- 25 Nos.
10. The equipment should be installed at the proposed site, demonstrate the required objective of the test with the claimed limit of detection/quantification with the sample provided.
11. Training should be given to the staff at the site of installation for the operation of instrument and on demand additional training should be provided.
12. The installation and hands on training by qualified service engineer should be provided
13. IQ/OQ/PQ: To be provided after the installation of the instrument.

#### Certification

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