COMMODITY DESCRIPTION

관세분류번호 H.S. NO.	등록번호 ITEM NO.	품명 DESCRIPTION	UNIT	Q`TY
		Gas Chromatograph/Mass Spectrometer	Sys	1

Ⅰ. 용도(End-user's Use)

1. The system is the ideal mass spectrometer for education, pesticides, environmental, clinical forensic and general analytical laboratories
2. Mass spectrometer design permits configuration of source, analyzer, detector and data system to meet particular application requirements

Ⅱ. 장비의 구성(Configurations of Goods)

[주장비]

1. GC mainframe	1 set
2. Mass Spectrometer	1 set
3. Split/Splitless, BKF Inlet	2 set
4. Flame Ionization Detector	1 set
5. Autosampler	1 set
6. Headspace system	1 set
7. Data Processing System	1 set

[부속장비]

8. Accessories	1 set

Ⅲ. 성능 및 규격(Performance and Specification)

1. GC mainframe
   1) Complete icon-driven touch screen user interface for direct local instrument control
   2) Column oven
      (1) Inner dimension : 12.9L or more
      (2) Temperature range : ambient +4℃ to 450℃ or wider
      (3) Temperature Set Resolution : 1℃ or less
      (4) Number of ramps/plateaus : 9/10 ramps or more
      (5) Maximum Heating rates : 125℃/min or more
      (6) Typical cool-down time : 450℃ to 50℃ in 4minutes or less

2. Mass Spectrometer
   1) Ion Source
      (1) EI mode
      (2) Ion source temperature : 50 to 350℃ or more
      (3) Filament : Dual EI

2) Mass Filter
(1) Off-axis ion guide pre-filter maintenance-free quadrupole rods
(2) Scan speed : 12,500u/s or more
3) Sensitivity
(1) EI scan mode : 1μl injection of 1 pg/μl for OFN, S/N ratio 1,500 : 1 for m/z 272 or more
4) Detection System
(1) Electrical dynamic range > 10^6
5) Mass Range : 1.2~1100u or more
6) Mass Stability : 0.1amu/48hrs or less
7) Vacuum system
Automatic vacuum system available in the following turbomolecular pumping configurations : 255 L/s pumped system or bigger
8) Ion Gauge Controller
9) Remove entire ion source and column without venting

3. Split/Splitless Inlet
1) Up to 18 channels of integrated electronic gas control
2) Minimum Pressure Set Point : 0.001psi or less
4) Pressure Range : 100psi or more

4. Flame Ionization Detector
1) MDL: <3.0 pg C/s or less
2) Linear dynamic range: >10^6 or more
3) Maximum temperature: 450 °C in steps of 1 °C or wider

5. Autosampler
1) Sample Loading Capacity : 100 vials or more

6. Headspace system
1) Sample Loading Capacity : 100 vials or more

7. Data Processing System
1) Hardware
(1) Microprocessor : Intel® i7 8700
(2) RAM memory : 32GB
(3) Hard disk capacity : 500 GB SSD
(4) Monitor : 24" LCD flat panel color monitor
(5) 24X CD-Rewritable CD-ROM, Mouse and keyboard
(6) PCI 10/100 twisted pair ethernet network card
(7) Windows 10, 64-bit
(8) Laser printer
(9) MS Office
2) Operating software for Mass spectrometer
(1) Instrument Status and Acquisition Queue

(2) Real Time Data Display
(3) Sequence Setup
(4) Automation : Simultaneous acquisition and processing of a sequence can occur with concurrent batch re-processing of previously acquired data
(5) Instrument Setup
(6) Processing Setup
(7) Flexible Quantitation
(8) Peak Identity Using Library Searching
(9) Reporting
(10) Results Review

3) NIST 2020 MS library

4) Audit Trails
- Secure, computer-generated, time-stamped audit trails automatically record details of system usage: Instrument Event Logs document all instrument and operator actions related to data acquisition
- Modification Histories document all changes made to control programs, methods, data objects, etc
- User Database Histories document user log-in, login failures, password changes, privilege changes, and electronic signature events
- electronic Signatures: Complete, seamless implementation of electronic signatures, compliant with requirements of 21 CFR Part 11

8. Accessories

1) Start-up Kit	1set
2) Additional Ion Source	2set
3) Dual Filament	2ea
4) Oil mist filter	2ea
5) Oil pump,1Liter	1ea
6) Transferline nut	4ea
7) S/Steel nut 1/16, 1.2mm hole PK5	2pk
8) Inlet nut PK5	3pk
9) Column nut PK5	3pk
10) Graphite Ferrule 0.1-0.32mm 10/PK	4pk
11) GRAPH/VES Ferrule 0.1-0.25mm 10/PK	4pk
12) Vespel Ferrule 0.1-0.25mm 10/PK	4pk
13) Liner 4X6.3X78.5mm 5PK	3pk
14) Liner 4X6.5X78.5mm 5PK	3pk
15) Liner Sealing ring 5PK	8pk
16) Septum 50PK	3pk
17) Inlet seal 0.8mm 2/PK	3pk
18) vial, Cap kit	5kit
19) 20ml vial, cap kit	5kit
20) HSS sampling loop 500ul	1ea
21) HSS sampling loop 1ml	1ea
22) 20mm electric crimper	1ea

23) 20mm electric de-crimper	1ea
24) 10uL Syringe	5ea
25) GC Cartridge - He specific	2kit
26) 35MS column, 30m x 0.25mm x 0.25um	2ea
27) WAXMS column, 30m x 0.25mm x 0.25um	2ea
28) Y-connector	1ea
29) INLINE COMBI OXYGEN& MOISTURE	1kit
30) INLINE MOISTURE FILTER METAL	1kit
31) 1/8 INCH BRASS END FITTINGSRE, 2/PK	2pk
32) FID kit	1ea
33) FID performance reagent	1ea
34) MS performance reagent	1ea
35) Lab Hood & Gasline	1set
36) Lab Table	1set

IV 기타조건(Remark)

1. We will provide three years warranty service after complete installation
2. Installation & performance test will be performed by qualified engineer with free of charge

위와 같이 일반 경쟁 입찰을 의뢰합니다.
PS : 입찰 후 최저가 응찰 업체를 낙찰자로 결정함.

2021. 7. 13

사용부서명 :

신청인 성명 : 전태영 인

부서장(확인자) 성명 : 김정호 인

기술부서명 : 관리부 의용공학과

담당자 : 서 보 경 인