



Scientific / Metrology Instruments

High Performance Gas Chromatograph – Time-of-Flight Mass Spectrometer

Solutions for Innovation

# NEW JMS-T200GC “AccuTOF GCx”

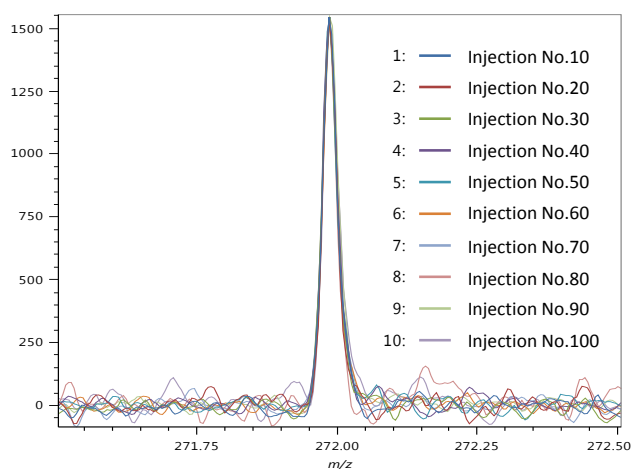
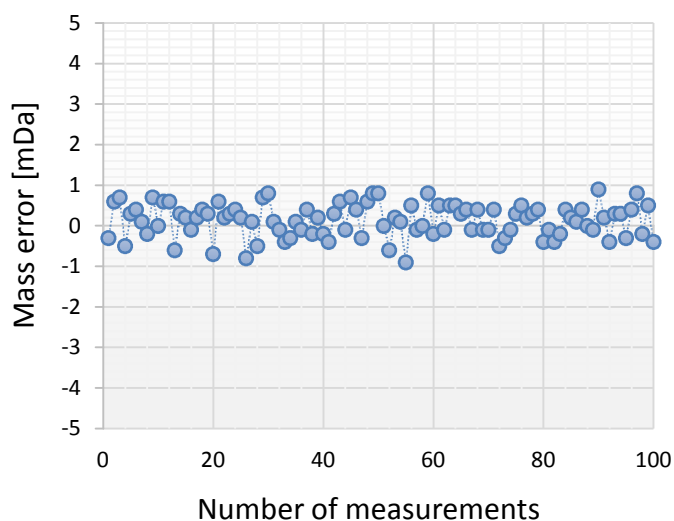
Direct TOFMS & GC-TOFMS with  
high speed, high resolving power and high mass accuracy



- ◆ High Sensitivity:  $S/N \geq 300$  for 1pg OFN (GC/EI)
- ◆ High Resolving power:  $R \geq 10,000$  (FWHM)
- ◆ High Mass Accuracy:  $\leq 1.5$  mDa or 4 ppm (RMS)
- ◆ High Acquisition Rate: up to 50 Hz (0.02sec/spectrum)
- ◆ Wide Mass Range:  $m/z$  4-6,000 and more
- ◆ New software: “msAxel”



## ➤ High Mass Accuracy and $m/z$ Stability



Overlay chart of OFN 100fg molecular ion peak  
(Theoretical:  $C_{10}F_8^+$ ,  $m/z$  271.9867)

Mass accuracy within +/- 1 mDa over 100 measurements

## Major optional attachments

- Direct insertion probe
- Direct exposure probe
- CI source
- FD/FI combination source
- EI/FI/FD combination source
- FD sampling tool



FD sampling tool

## Easy linkage to various optional software



- NIST mass spectral library
- Escrime for batch quantitative analysis of multiple components
- Polymerix<sup>TM\*1</sup> for analysis of polymers/hydrocarbon types
- GC Image<sup>TM\*2</sup> for GCxGC analysis

\*1 :Sierra Analytics, Inc. \*2 :GC Image, LLC

## Standard configuration

Ion source	Electron ionization
Analyzer	Reflection time-of-flight mass analyzer
Ion detector	Dual microchannel plate
Data acquisition system	continuous averager
Vacuum system	2 turbo molecular pumps 2 rotary pumps
Gas chromatograph	Agilent 7890B
Data system	Personal computer, LCD monitor, laser printer, rewritable DVD drive, Windows operating system, data system software (msAxel)

## Installation requirements

Power supply	
Main console	Single phase AC190- 210V or 220- 240V, 20A, 50-60Hz
Gas chromatograph	Single phase, AC 200V or 220V or 230V or 240V, 20 A
Data system	AC100-120V, 15A, 50-60Hz AC200-240V, 7.5A, 50-60Hz
Grounding	100 Ω or less
Gas	
<b>Nitrogen gas</b>	
For purging ion source and analyzer	0.5 to 0.6 MPa, 97% or better purity
For driving valves	
<b>Helium gas</b>	
For gas chromatograph	0.5 to 0.68MPa, 99.999% or better purity, 0.5ppm or less hydrocarbon content

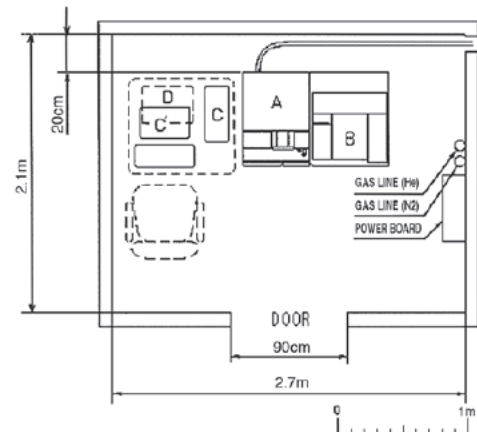
Installation room	
Varying magnetic field	1×10 <sup>-6</sup> T or less
Static magnetic field	5×10 <sup>-4</sup> T or less
Floor vibration	Amplitude (p-p) 25 μm or less, acceleration 0.1 m/s <sup>2</sup> or less
Room temperature	20 to 27 °C
Temperature fluctuation	±3 °C / h or less
Humidity	30 to 70% (no condensation)
Maximum heat generation	25,560 kJ/h (calculated from maximum power consumptions of mass spectrometer, gas chromatograph, and data system)
Ventilation facility	Ventilation facility for rotary pump exhaust is required

Power supply requirement depends on a specific configuration sold in each territory. Please inquire a local sales office for details.



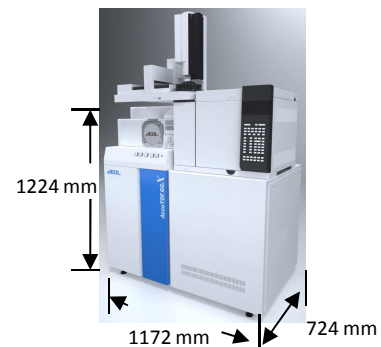
High technology for quality assurance and the environment.

## Example of an installation room



## Installation example

Symbol	Unit	Width(mm)	Depth(mm)	Height(mm)	Weight (kg)
A	Mass spectrometer	1,172	724	1,224	340
B	Gas chromatograph	582	513	488	49
C	Computer	168	450	456	15
C'	TFT LCD monitor	443	220	555	9.2
D	Laser printer	385	279	261	6



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