Agilent Technologies

6100 Series Single Quadrupole LC/MS – Site Preparation Checklist

Thank you for purchasing an Agilent **instrument**. To get you started and to assure a successful and timely installation, please refer to this specification or set of requirements.

Correct site preparation is the key first step in ensuring that your instruments and software systems operate reliably over an extended lifetime. This document is an **information guide AND checklist** prepared for you that outlines the supplies, consumables, space and utility requirements for your equipment.

Customer Responsibilities

Make sure your site meets the following specifications before the installation date. For details, see specific sections within this checklist, including:

- ❑ The necessary laboratory or bench space is available
- ❑ The environmental conditions for the lab as well as laboratory gases and plumbing
- ❑ The power requirements related to the product (e.g., number & location of electrical outlets)
- ❑ The required operating supplies necessary for the product and installation
- ❑ Please consult Other Requirements section below for other product-specific information.
- ❑ For more details, please consult the product-specific Site Preparation or Pre-Installation manual.

If Agilent is delivering installation and familiarization services, users of the instrument should be present throughout these services; otherwise, they will miss important operational, maintenance and safety information.

Important Customer Information

1. If you have questions or problems in providing anything described as a Customer Responsibility above, please contact your local Agilent or partner support/service organization for assistance prior to delivery. In addition, Agilent and/or it's partners reserve the right to reschedule the installation dependent upon the readiness of your laboratory.
2. Should your site not be ready for whatever reasons, please contact Agilent as soon as possible to re-arrange any services that have been purchased.
3. Other optional services such as additional training, operational qualification (OQ) and consultation for user-specific applications may also be provided at the time of installation when ordered with the system, but should be contracted separately.

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Dimensions and Weight

Identify the laboratory bench space before your system arrives based on the table below.

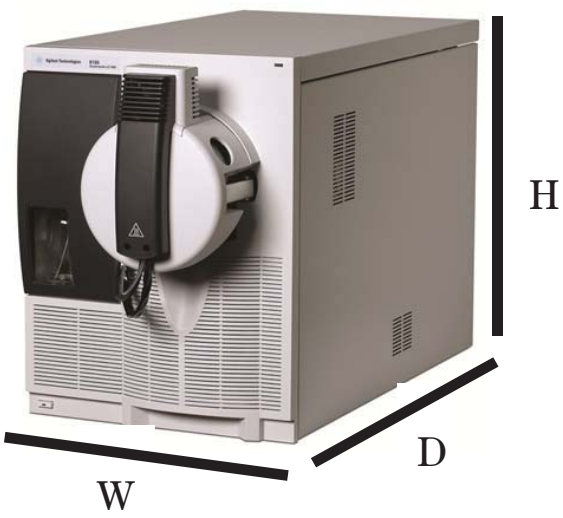
Pay special attention to the **total height and total weight requirements for all system components you have ordered and avoid bench space with overhanging shelves**.

Special Notes

1. At least 2 people must be present to lift the LC/MS and foreline pump.

Instrument Description	Weight		Height (H)		Depth (D)		Width (W)	
	Kg	lbs	cm	in	cm	in	cm	in
G6100 A/B/C Series Single Quad LC/MS System	60.7	133.8	45.0	18.0	63.5	25.0	40.0	15.
Foreline pump (G6100A) Edwards E1M18 with oil mist filter	32.0	70.4	23.0	9.2	51.0	20.4	17.0	6.8
Foreline pump (G6100B & G6100C) Agilent MS40+	33.0	72.7	22.8	9.0	41.8	16.5	29.7	11.7
Foreline pump (optional) Edwards XDS35i	48.0	106	39.0	15.3	47.6	18.7	29.0	11.4
Foreline pump (optional) Agilent TS800 Dry Pump – Does not include foreline HEPA filter	32	71	39.1	15.4	56.7	22.3	30	11.8
G1948B ESI Source	1.7	3.75	17.0	6.8	9.5	3.7	18.0	7.1
G1947B APCI Source	1.7	3.75	23.0	9.2	11.5	4.5	18.0	7.1
G1971B APPI Source	1.7	3.75	23.0	9.2	13.0	5.1	18.0	7.1
G1978B MultiMode Source	2.3	5.05	23.0	9.2	13.0	5.1	18.0	7.1
Agilent Jet Stream Technology	1.7	3.75	23.0	9.2	11.5	4.5	18.0	7.1

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Environmental Conditions

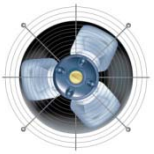
Operating your instrument within the recommended temperature ranges insures optimum instrument performance and lifetime.

Special Notes

1. Performance can be affected by sources of heat & cold e.g. direct sunlight, heating/cooling from air conditioning outlets, drafts and/or vibrations.
2. The site's ambient temperature conditions must be stable for optimum performance.
3. Temperature changes of 3°C / hour or less (as defined by ASTM conditions) are required to achieve best possible baseline stability. Higher variations will result in higher signal drift and wander of the baseline.

Instrument Description	Operating temp range °C (F)	Operating humidity range (%)	Heat Dissipation (BTU)
6100 Series Single Quad LC/MS System including the rough pump and source.	15 to 35°C (59 to 95°F), constant temperature.	< 80%, non-condensing	Up to 6800 BTU/hr, (2000 Watts)

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Exhaust Venting Requirements

The Single Quad LC/MS foreline pump exhaust and spray chamber exhaust must be vented outside of the laboratory environment. Exhaust vent system should not be part of an environmental control system that re-circulates air inside of a building. Exhaust venting requirements need to comply with all local environmental and safety codes.

1. A 6 meter (20ft.) length of 1/2 inch i.d. PVC/vinyl tubing is included for venting the foreline pump exhaust and ion source (ESI, APCI, Multimode, APPI) or Agilent Jet Stream Technology exhaust. This is sufficient for two three meters (10-foot lengths).
2. The foreline pump exhaust and the ion source exhaust **cannot share the same piece of exhaust tubing**. Separate ½ inch hose barbs are required to connect the tubing to the exhaust vent. If both exhaust tubes are being connected to a common exhaust system, the source exhaust tube must be upstream of the foreline pump exhaust.

Output Source	Ventilation Draw Range	Minimum Flow	Maximum Flow
Rough Pump	0.01 to 0.1 inches of water (0.025 to 0.25 mBar)	1.0 L/min (2.1 ft^3/hr)	Up to 3 L/min (6.4 ft^3/hr)
Agilent 6100 Series without Agilent Jet Stream	0.01 to 0.1 inches of water (0.025 to 0.25 mBar)	5 L/min (10.6 ft^3/hr)	Up to 16 L/min (33.9 ft^3/hr)
Agilent 6100 Series with Agilent Jet Stream	0.01 to 0.1 inches of water (0.025 to 0.25 mBar)	5 L/min (10.6 ft^3/hr)	Up to 30 L/min (63.6 ft^3/hr)

IMPORTANT: Excessive draw from the fume exhaust system to the source can negatively affect the performance of the LC/MS system.



Power Consumption

Special Notes

1. If a computer system is supplied with your instrument, be sure to account for those electrical outlets.
2. A dedicated 15 Amp 200-240V AC power outlet is required for the 6100 Series Single Quad LC/MS. The 6100 Series Single Quad LC/MS should be located with 2.5 meters (8 feet) of this outlet. Please refer to the Site Preparation Manual for additional details.
3. Additional outlets are required for all Agilent 1100/1200 HPLC modules. Please refer to the Site Preparation Checklist and Manuals for more detailed information.

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Instrument Description	Line Voltage & Frequency (V, Hz)	Maximum Power Consumption (VA)	Maximum Power Consumption (W)
G6100 A/B/C Series Single Quad LC/MS System with foreline pump	200-240 VAC @ 50/60 Hz	15 Amps	2000 VA



Required Operating Supplies by Customer

Special Notes

For information on Agilent consumables, accessories and laboratory operating supplies, please visit http://www.chem.agilent.com/en-US/Products-Services/Services/Pages/default.aspx

Item Description (including dimensions etc)	Vendor's Part Number (if applicable)	Recommended Quantity
See Site Preparation Guide	G1960-90010	1
Tuning Calibrants – Dependent on LC/MS and Source		
Electrospray (ESI) Calibrant	G2431A	1
APCI/APPI Calibrant	G2432A	1
ESI-Low Calibrant	G1969-85000	1
APCI-Low Calibrant	G1969-85010	1
Performance Standard – Electrospray/APCI Positive Ion	G2423A	1
Performance Standard – Electrospray Negative Ion	G2424A	1
Performance Standard – APCI Negative Ion	G2525A	1
Performance Standard – MultiMode LC Demo Sample	G1978-85000	1
Performance Standard – Electrospray LC Demo Sample	59987-20033	1
Ammonium Formate	G1946-85021	1
Formic Acid – Reagent Grade	G2453-85060	2

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HPLC Flushing Solvent (500 mL)	G1969-85026	1
Methanol, High Purity (1 L)	8500-1867	3
Acetonitrile, High Purity (1 L)	G2453-85050	2
Water, High Purity (4 L)	8500-2236	1
Pipette, 1 mL	9301-1423	3
Volumetric Flask, 50 mL	9301-1424	1
Volumetric Flask, 100 mL	9301-1433	2
Vials, 2 mL Screw Top, Wide Opening, Amber (100/pk)	5182-0716	1
Vial Caps, Blue, PTFE/red silicone septa (100/pk)	5182-0717	1

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Gas Requirements

Gas requirements	Minimum Purity	Typical pressure range	Typical flow(L/min)	
			6100 Series without Agilent Jet Stream	6100 Series with Agilent Jet Stream
Nitrogen generator	95.0% pure or better	80 – 100 psi 550 – 690 kPa	Up to 16 liters/minute	Up to 30 liters/minute
Liquid nitrogen Dewar	95.0% pure or better	80 – 100 psi 550 – 690 kPa	Up to 16 liters/minute	Up to 30 liters/minute

1. Gases are supplied by high pressure bottles is not supported on the Agilent Single 6100 Series LC/MS configurations. Please note that high pressure bottles are NOT suitable for supplying nitrogen for Drying Gas and Nebulizer requirements due to the high flow rates. At least 3 liters/minute is required at all times to prevent air from entering the instrument.
2. Purity specification given is the minimum acceptable purity. Major contaminates can be water, oxygen, or air.

Important Customer Web Links

- ❑ For additional information about our solutions, please visit our web site at http://www.chem.agilent.com/en-US/Pages/HomePage.aspx
- ❑ Need to get information on your product?
  Literature Library - http://www.agilent.com/chem/library
- ❑ Need to know more?
  Customer Education – http://www.agilent.com/chem/education

Need technical support, FAQs? –http://www.chem.agilent.com/en-US/Technical-Support/Pages/default.aspx

- ❑ Need supplies? – http://www.agilent.com/chem/supplies

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