G1888 Headspace Site Preparation Checklist

Purpose of Procedure

Your site must meet this set of requirements to assure a successful and timely installation of your G1888 Network Headspace Sampler. This checklist is designed to prevent delays during installation, familiarization, and the initial use of the Headspace in your application. This checklist outlines the space and utility requirements. It also recommends tools and consumables that may help you get started. Use it along with the Headspace Site Preparation and Installation documentation and Consumable Catalog. This information is available from Agilent Technologies, Inc.'s website. If you need assistance, please contact your local Agilent Technologies office.

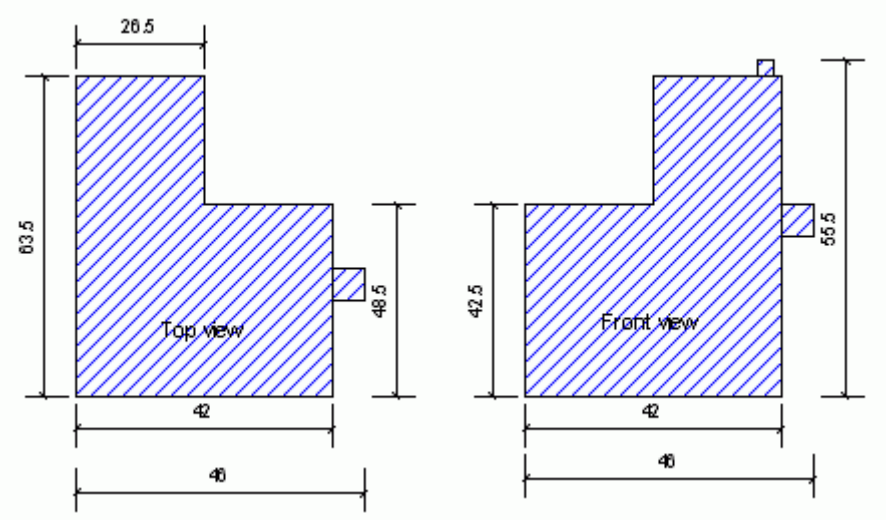
Customer Responsibilities

Make sure your site meets this specification, including: the necessary space, a level laboratory bench, electric outlets, gases, tubing, operating supplies, consumables and other usage dependent items such as columns, vials, syringes and solvents required for the successful installation of instruments and systems. 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.

Physical specifications

The sampler should be placed on a LEVEL laboratory bench on the left-hand side of the GC or GC-MSD system. The length of the transfer line is 78 cm from the top of its support bracket.

Dimensions (H x W x D)	Weight
55.5 cm x 46 cm x 63.5 cm	46.3 kg
21.6 in x 18.1 in x 25 in	102 lbs



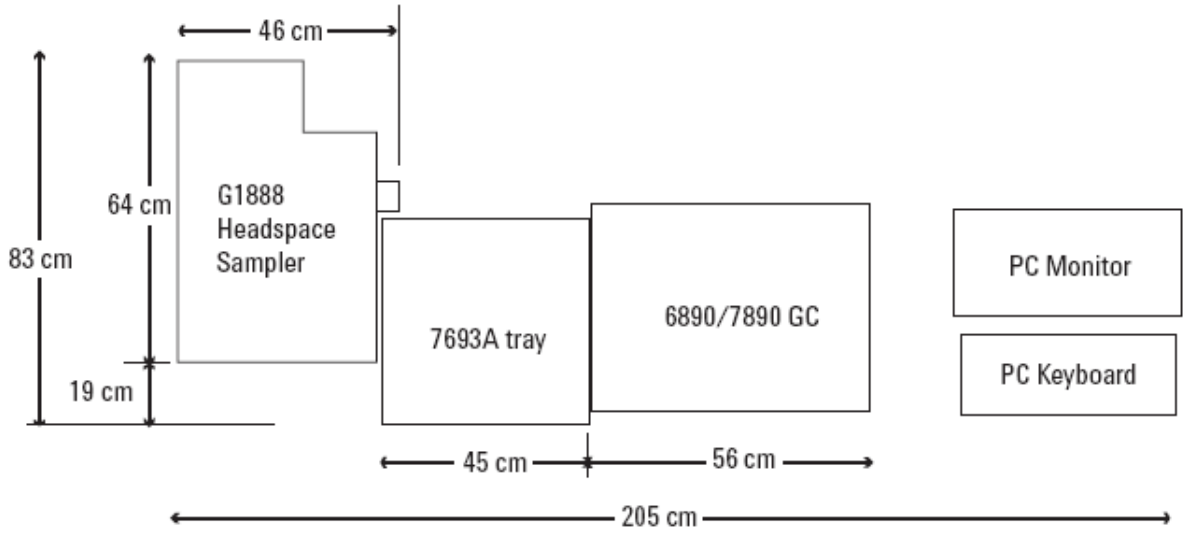
Physical Dimensions with a 7693A Installed

If the G1888 Headspace Sampler is to be used with an Agilent GC configured with a 7693A tray, its bench space requirements increase to 83 cm (33 inches) deep by 46 cm (18.1 inches) wide. Additionally, the GC must be configured as follows:

• MMI or Split/Splitless inlet mounted in GC rear inlet location

• Headspace Sampler transfer line spliced into rear inlet carrier gas line (must be EPC mode)

• Use of Headspace transfer line with needle into inlet septum not permitted (Manual pneumatic mode not supported)



Electrical Specifications
All units are shipped with the line voltage selector switch set to 230 VAC.

Voltage Selector	Line Voltage	Frequency	Current	Power (or VA)
115 230	90 to 132 VAC 198 to 264 VAC	50-60 Hz	6 amps 3 amps	750 VA

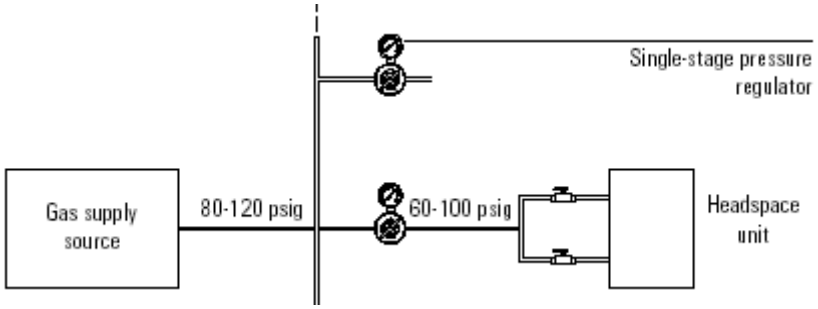
A proper earth ground is required for headspace sampler operations. To protect users, the metal instrument panels and cabinet are grounded through the three-conductor power line cord in accordance with International Electrotechnical Commission (IEC) requirements. The three-conductor power line cord, when plugged into a properly grounded receptacle, also grounds the instrument and minimizes shock hazard. The recommended maximum reading for neutral to ground is 3 VAC.

Mechanical Specifications
This sampler is designed to handle 23-mm diameter vials. To prevent system contamination, the vials should not be filled more than ¾ full.

Vial size	Diameter	Height	Part number
10-mL	23 mm	46 mm	5182-0838
20-mL	23 mm	75 mm	5182-0837

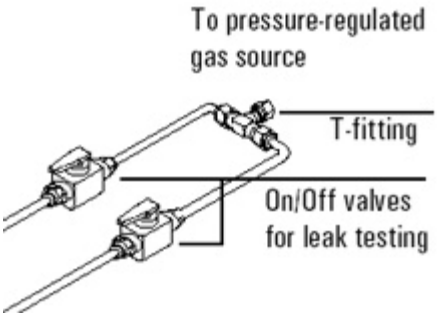
A supply of helium gas is required for both vial pressurization and carrier. The source can be a tank, an internal distribution system, or a gas generator. Agilent recommends that carrier and vial pressurization gases be 99.9995% pure. Agilent also recommends using traps to remove hydrocarbons, water, and oxygen.

Do not use hydrogen in the sampler. Hydrogen is a flammable gas. The vial pressurization flow path empties into the oven compartment in standby mode where there are electrical connections. This is a fire or explosion hazard. Leaks from the carrier flow path, when confined in an enclosed space, may also create a fire or explosion hazard.

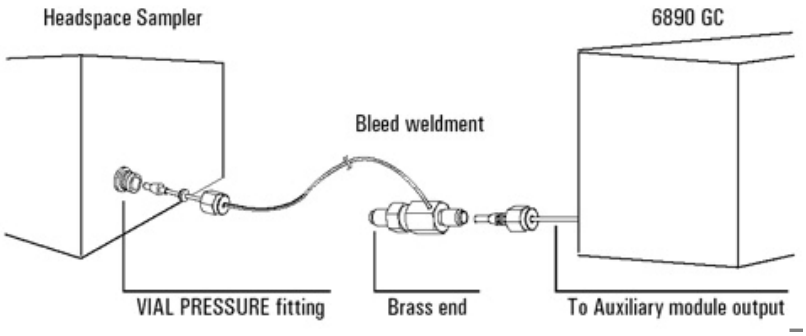


Agilent recommends a supply pressure of 80 psig.

Conversion factor: 1 psi
= 6.8947 kPa
= 0.068947 Bar
= 0.068 ATM



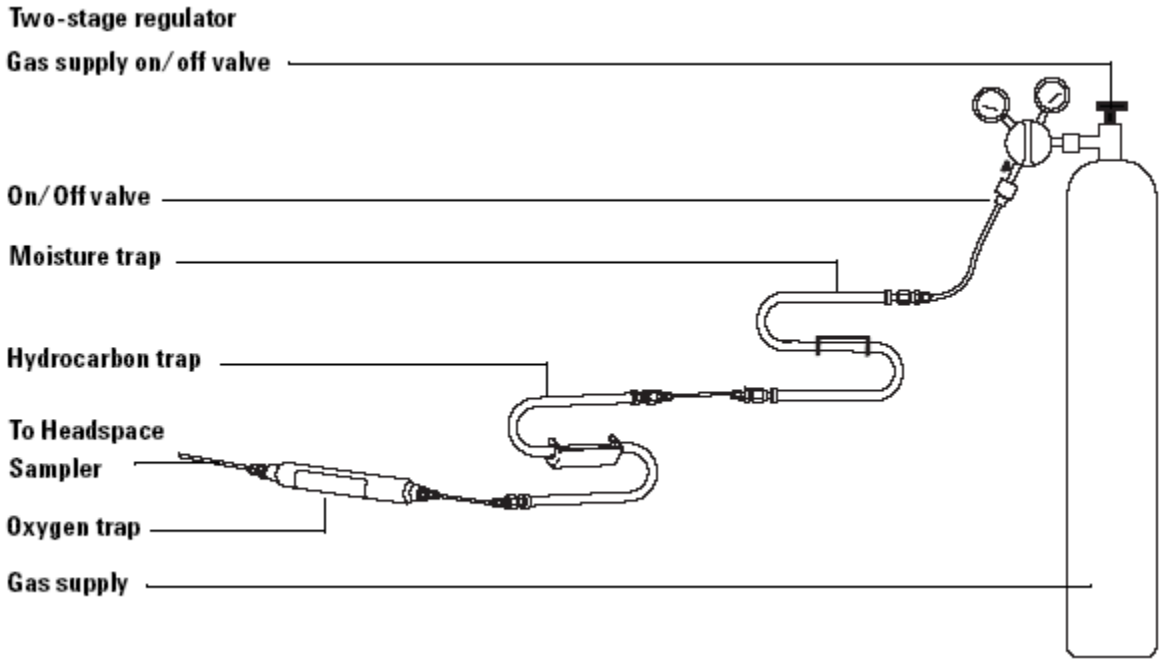
For installations with manual pneumatic control, always use the plumbing kit G1290-60515 to facilitate leak testing. For all installations, we recommend using the On/Off valves for leak testing.



For installation with EPC pneumatic control, always use the bleeder weldment 19258-60530 in the Vial Pressurization flow path.

Tank system

Your helium supply must have **one 1/8-inch Swagelok female connector.** Make sure that the regulator has the appropriate sized adapter to end with a1/8-inch Swaglok female connector. Tank supplies require two staged, pressure regulation.



Decisions to make before installation

Please circle the installation options for various inlets and pneumatic controls and discuss your choices with the Agilent representative that schedules your installation.

GC	5890	6890	6850	7890	Other:
Inlet connection	Direct VI	Splice S/S[1]	Needle S/S[1]	Other:	
Carrier control	Inlet EPC[2]		Manual flow controller (MPC)		
Vial pressurization	Auxiliary EPC channel ____[2]		Manual pressure regulator (MPC)		
Detector	FID	MSD	mECD	NPD	Other:
PC and software control					
Communication protocol[3]	LAN		RS-232 @ 9600 baud	Standalone	
Vial size	20-mL		10-mL		
Pressure units	PSI		KPA	BAR	
Check For Ready	No Check	APG Wait	APG Abort		
Install Diagnostic Tool	Yes		No		

1 - In some cases, the S/S inlet connection options can accommodate an Agilent Automatic Liquid Sampler.

2 - EPC enables you to store the flow and pressure conditions in the software method.

3 - If adding to an existing system, you may need to supply additional communications hardware, such as, LAN switch or USB to RS-232 converter cable.

Environmental Specifications
The following table lists an estimated thermal output and recommended operating ranges.

Output (BTU/hr)	Operating Range	Operating Humidity Range	Maximum Altitude
220	5° to 45° C	5 - 90%	4000 m

For storage or transportation, the allowable temperature range is -40 to 70°C with a humidity range of 5-95%, non-condensing. When transporting the sampler, we recommend using the following tested packaging part number 0410098003.

Non-Agilent computer and networking
If you are providing a non-Agilent computer or software for controlling the system or have any networking requirements, please contact your sales representative to insure compatibility and discuss any additional services or IT coordination.

Consumables and tools
Your G1888A comes with the following consumables, parts, and tools.

Part number	Description	Purpose
5182-0837	Flat bottom headspace vials, 20ml, 100PK	Agilent recommended vials and caps. Agilent also carries an electronic crimper.
5183-4477	Headspace Al crimp cap, PTFE/Silicone septa, 20mm, 100PK	
9301-0720	Crimper, 20mm	
G1290-60515	MPC Plumbing Kit	For connecting helium source for manual pneumatic control and leak testing.
2322590005	Needle, headspace transfer line, deactivated, D 0.7X0.4	Recommended parts for connecting the transfers line to a capillary Split/Splitless Inlet with a needle.
5181-8818	Liner, direct, 2 mm id, deactivated	
5182-3413	Septa, low bleed 11mm 5/PK	
6410090050	Strain relief for supporting transfer line needle	
G1290-60630	Kit for attaching to Inlet for EPC control	Parts needed to splice into a Split/Splitless Inlet for EPC control of carrier flow and connecting AUX EPC to control vial pressurization.
19258-60530	Pressure Bleed Weldment for AUX EPC control of vial pressurization	
1340407010	Wrenches, 7x8 mm, set of 2	Used for tubing connections.

G1888-60701	Headspace leak test kit	Includes parts to facilitate leak testing.
G1530-60930	Cable, remote start/stop	Used to start Agilent GC
8121-0940	Cable, 100 BaseT LAN	Used for connecting controlling software to sampler.
G1530-60600	Cable, RS-232	
G4600-64006	GC/GCMS HW User Information and Utilities DVD	Manuals and videos

First time headspace users should consider purchasing other supplies to maintain their system and prevent interruptions in the use of their system. The following is a list of the consumables for this instrument. Please refer to the Agilent Consumables and Supplies Catalog for alternative vial closures, standards, and parts. New instrument purchasers can get a 15% discount on their 1st order of supplies for 60 days after the equipment order.

Part number	Description
2322700011	Sample probe, deactivated
2322590004	Needle, headspace transfer line, deactivated D 0.5X0.2
2322590005	Needle, headspace transfer line, deactivated D 0.7X0.4
2321700003	Sample loop, 1-mL, deactivated
2321700004	Sample loop, 3-mL, deactivated
2307230001	Union, zero dead volume, deactivated
1300502506	Tube, probe to 6-port valve, deactivated
2307601004	Tubing assembly, 6-port valve to solenoid valves, deactivated
5182-0838	Flat bottom headspace vials, 10ml, 100PK
5182-0837	Flat bottom headspace vials, 20ml, 100PK
5183-4477	Headspace Al crimp cap, PTFE/Silicone septa, 20mm, 100PK