

Agilent CrossLab Start Up Services

Agilent 490 Micro GC Site Preparation Checklist

Thank you for purchasing an instrument from **Agilent Technologies**. CrossLab Start Up is focused on helping customers shorten the time it takes to start realizing the full value of their instrument investment.

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, space, and utility requirements for the system set up in your lab.

Introduction

Customer Information

- If you have questions or problems in providing anything described as part of *Customer Responsibilities* below, please contact your local Agilent or partner support / service organization for assistance prior to delivery. In addition, Agilent and/or its partners reserve the right to reschedule the installation dependent upon the readiness of your laboratory.
- Should your site not be ready for whatever reasons, please contact Agilent as soon as possible to re-schedule any services that have been purchased.
- 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.
- Please refer to the other peripheral products (ie, sampling devices, etc.) for site preparation requirements.

Customer Responsibilities

Ensure that 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 required **environmental conditions for the lab** as well as laboratory gases, tubing.
- The **power requirements** related to the product (e.g. **number & location** of electrical outlets).
- The **required operating supplies** necessary for the product and installation.
- While Agilent is delivering **Installation and Introduction** services, users of the instrument should be present throughout these services; otherwise, they will miss important operational, maintenance and safety information.
- Please consult the **Special Requirements and Other Considerations** section below for other product-specific information
- This procedure can be used for the CP4900, CP4900 PRO, and the 490 PRO Micro GC.

Please refer to the Site Preparation Guide Manual for additional information, part number G3581-90002

Important Customer Web Links

- To access **Agilent University**, visit <http://www.agilent.com/crosslab/university/> to learn about training options, which include online, classroom and onsite delivery. A training specialist can work directly with you to help determine your best options.
- To access the **Agilent Resource Center** web page, visit <https://www.agilent.com/en-us/agilentresources>. The following information topics are available:
 - Sample Prep and Containment
 - Chemical Standards
 - Analysis
 - Service and Support
 - Application Workflows
- The **Agilent Community** is an excellent place to get answers, collaborate with others about applications and Agilent products, and find in-depth documents and videos relevant to Agilent technologies. Visit <https://community.agilent.com/welcome>
- Videos about specific preparation requirements for your instrument can be found by searching the **Agilent YouTube** channel at <https://www.youtube.com/user/agilent>
- **Need to place a service call?** [Flexible Repair Options | Agilent](#)

Site Preparation

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. Also pay special attention to the total weight of the modules you have ordered to ensure your laboratory bench can support this weight.

Special notes

The following table provides dimensions and weight requirements.

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs.	cm	in	cm	in	cm	in
Micro GC 2-CH	6	14	28	11	30	12	16	6.5
Micro GC4-CH	10	22	28	11	55	21.5	16	6.5
Power supply	1	2	6.4	2.5	17.8	7	9.5	4
Field case 2-CH	16	35	38	15	41	16	30	12
Field case 4-CH (with trolley)	30	68	47	18.5	73	28.5	38	15
Chromatography Workstation (Computer with monitor, approximate values)	16	35	43	17	53	21	43	17

Environmental Conditions

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

Special notes

- Performance can be affected by sources of heat & cold, e.g. direct sunlight, heating/cooling from air conditioning outlets, drafts and/or vibrations.
- The bench or supporting surface must be vibration free.

The following table may help you calculate the additional BTUs of heat dissipation from this new equipment. Maximums represent the heat given off when heated zones are set for maximum temperatures.

Instrument Description	Operating temp range °C	Operating humidity range (%)	Maximum altitude (m)
Micro GC 2/4CH	0 to +50	0 to 95	up to 2,000

Heat Dissipation

Your facilities manager may wish to know the amount of heat that the system generates in order to establish its contribution to the overall room ventilation requirements.

Power Consumption

Special notes

- If a computer system is supplied with your instrument, be sure to account for those electrical outlets.

Instrument Description	Line Voltage and Frequency V, Hz	Maximum Power Consumption VA	Maximum Power Consumption W
Micro GC 2/4CH	100 to 240V & 50-60Hz	150	150

Carrier gas connection

Special notes

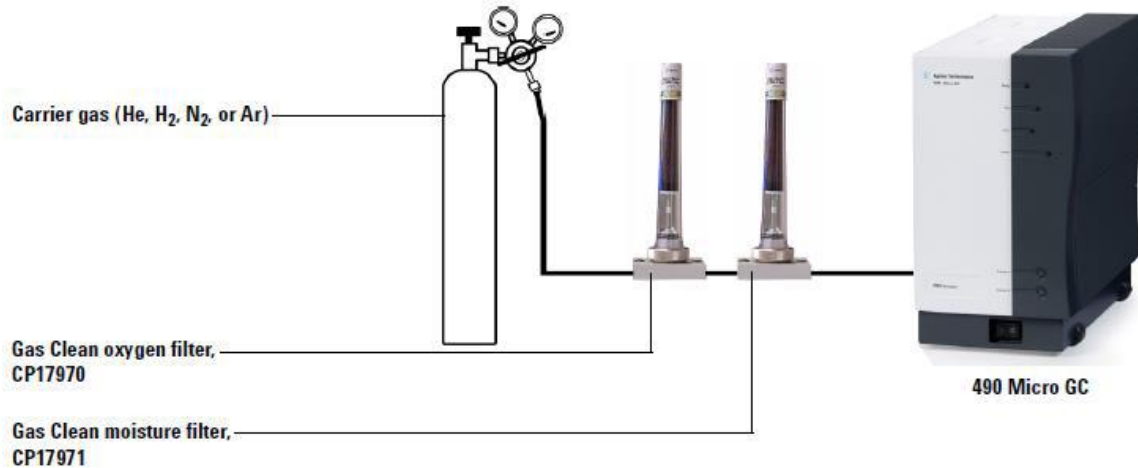
- For information on Agilent consumables, accessories, and laboratory operating supplies, please visit: <https://www.agilent.com/en-us/agilentresources>.
- Installation kit to ensure successful installation.

Item Description	Part Number	Recommended
Installation kit for Micro GC	CP742355	1
Moisture filter	CP17971	1
Oxygen filter	CP17970	1

External gas supply

1. The carrier gas line is connected from the bulk carrier gas tank to the Micro GC on the rear panel: CARRIER 1 or CARRIER 2 port.
2. Do not use plastic tubing. Use only properly rinsed copper or stainless steel tubing.
3. Gas cylinder provided with a proper working two-stage pressure assembly to adjust the carrier gas pressure to 550 Kpa \pm 10%(80PSI \pm 10%)
4. Gases in gas bottles must have a minimum purity of 99.999%
5. The use of Gas Clean filters is recommended. Gas Clean filters are filled with nitrogen.

6. If you are not using nitrogen as the carrier gas, flush filters and gas lines after installation of a new filter.



The figure shows the Gas Clean oxygen filter (p/n CP17970) installed in series with the Gas Clean moisture filter (p/n CP17971). There is a starter kit available including a dual connection unit and an oxygen and a moisture filter, p/n CP738408

Internal gas supply of the field case

In order to fill the built-in carrier gas supply tank, a separate gas cylinder must be present having a pressure amply over 12000kPa (120 bar. 1800 Psi)

Hydrogen must NEVER be used!

Sample gases

1. Only gas samples should be supplied to "Sample-In"
2. Type of samples: non-condensing gas
3. Samples other than non-condensing gases (aerosols, particles and polymers) must be filtered in advance by Genie filter
 - a. External Genie filter kit part number: CP739536
 - b. Internal Genie filter kit Part number: G3581-60039, G3581-60040, G3581-60041
4. Sample condition: non-condensing gas ambient to 110°C
5. Sample pressure systems: between 0 and 100 kPa (15PSI)
6. Sample pressure Preconcentrator EDU-Varian: Atmospheric pressure

7. Sample for Liquefied Petroleum Gas (LPG) and Liquefied Natural Gas (LNG). These samples can be introduced on the Micro GC using the optional Micro-Gasifier.

8. Outlet of sample container must fit a stainless steel capillary of 1/16" outside diameter, provided with a Swagelok ® female nut.

Other Requirements

After storing Micro GC

Follow the procedure below if you're Micro GC has been stored for a long period.

- Put carrier gas on the Micro GC
- Switch the Micro GC ON
- Switch the TCD filament(s) OFF
- Set the column(s) temperature to its maximum (depending on the column module)
- Condition the column module, preferably overnight. This will ensure you that all the water has been removed from the column module and no damage will occur to the TCD filaments

Service Engineer Review (Optional)

Service Engineer Comments

If the Service Engineer completed a review of the Site Preparation requirements with the customer, the Service Engineer should complete the following Comments section. Both the Service Engineer and the customer should complete the Site Verification section below.

If there are any specific points that should be noted as part of performing the site preparation review or other items of interest for the customer, please write in this box.

Site Preparation Verification

Service Request Number:

Service Engineer Name:

Service Engineer Signature:

Total number of pages in this document:

Date of Review:

Customer Name:

Customer Signature: