

Agilent GPC 220 HT-Instrument Extended 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 for your site.

Customer Responsibilities

Make sure your site meets the following prior 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 (delete this line if a Site Prep Guide does not exist).

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 Responsibilities above, 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.
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**. 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

1. The oven and solvent module lids open upwards to a full height of 97cm (38"). Please be aware of overhead obstructions.
2. If an Agilent GPC 220 Dual Angle Light Scattering Detector (G7822A) or and Agilent GPC 220 Viscometer (G7821A) is included in the instrument allow an additional 30cm (12") for each of these detector control systems on the depth and width of the bench space.

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs	cm	in	cm	in	cm	in
Agilent GPC 220	180	370	63	25	56	22	140	55

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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. Situate the instrument in a well-ventilated area. An air change rate of at least 12 times per hour is recommended.
4. The instrument is equipped with two fan-forced air exhausts (4" dia) at the rear of each module, which must be routed to a fume extraction system or vented to a safe place via the supplied hoses. Both vent hoses for the Instrument are 4 inches in diameter.
5. The air flow of the extraction system should be <1 SLM. Care must be taken that the efficiency of (LEV) systems are compromised by the change in airflow characteristics caused by the hose positioning and that inhalation exposures to harmful substances are still under control. If in doubt, please contact a qualified ventilation engineer specializing in LEV and an occupational hygienist.

Instrument Description	Operating temp range °C (F)	Operating humidity range (%)	Heat Dissipation (BTU)
Agilent GPC 220	15-35°C (59-95°F)	<80% at 25-35°C (77-95°F)	7900

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Power Consumption

Special Notes

1. Two power outlets are required; one for the main oven unit and one for the solvent module.
2. In 110V countries, USA and Japan etc it is necessary to install TWO 220V outlets that comprise two 110V lines at opposite phase. These outlet need to be fitted with NEMA L6 -15R Locking Receptacle as shown below:-



3. If additional detectors and a computer system are to be installed be sure to account for those electrical outlets.

Instrument Description	Power Requirements	Number of Outlets
Agilent GPC220	220 - 240V	2
Agilent GPC220 Dual Light Scattering Detector (G7822A)	110 - 240V	1
Agilent GPC220 Viscometer (G7821A)	110 - 240V	1

For countries where 220-240V will have to be installed 2 x 3M main power leads are provided with 2Pole, 3Wire, Single Phase as below:



4. Ensure that the mains supply is fitted with a residual current circuit breaker.
5. Please have a qualified Electrician arrange for the proper electrical service.

Instrument Description	Line Voltage & Frequency (V, Hz)	Maximum Power Consumption (VA)	Maximum Power Consumption (W)
Agilent GPC 220	220-240V(AC)	3300	2310

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Required Operating Supplies by Customer
Special Notes

1. For information on Agilent consumables, accessories and laboratory operating supplies, please visit <http://www.chem.agilent.com/en-US/Products/consumables/Pages/default.aspx>
2. Author to add info in table below on **required** supplies in order to ensure successful installation.

Item Description (including dimensions etc)	Vendor's Part Number (if applicable)	Recommended Quantity
2,6-Di-Tert-Buty-4-Methylphenol (BHT) required for stabilization of the filtered Trichlorobenzene.	Sigma Aldrich Part#: B1378-100g	100g
1,2,4-Trichlorobenzene (TCB) GPC grade for Gel Permeation Chromatography Or alternatively, HPLC grade	Sigma Aldrich Part#: 132047-2.5L	5.0 L


Other Requirements

The instrument will be delivered in two, pallet type closed boxes. As our commissioning engineers do not carry lifting or moving equipment, nor are they trained to use such equipment, instruments must be positioned at the commissioning location before they arrive. If you do not possess the necessary resources to unpack, move &/or position the instrument modules safely for commissioning, please contact us as soon as possible and we will assist you in locating a suitable contractor to do this on your behalf.

Solvent Preparation

It is recommended that TCB is stabilized with an anti-oxidant to prevent the formation of 'Chlorine ions', which can damage the stainless steel tubing of the instrument. The anti-oxidant recommended for use is 2,6 -Di-Tert-Buty-4-Methylphenol (BHT). The recommended concentration of BHT is 125 ppm (this equates to 1.25 grams of BHT per litre of TCB).

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Solvent Filtration

It also is recommended that TCB (with Stabilizer added) is vacuum filtered before being used for any analysis, the table below shows part numbers for the filtration equipment and filter papers which are recommended. The steps required for filtration can be found in the 'Special Notes' section below.

Item Description (including dimensions etc)	Vendor's Part Number (if applicable)	Recommended Quantity
HPLC Solvent Filter / Degasser assembly	Agilent Part#: 3150-0577	1
Whatman Hardened Circle (50mm) -filters to 2.7 μ m	Whatman Part#: 1450-050	1 pack (100/pk)
Whatman Anodisc 47 (47mm) - filters to 0.02 μ m	Whatman Part#: 6809-5002	1 pack (50/pk)

Special Notes

1. Please ensure for RI and Viscometer analysis that the TCB (with stabilizer added) is filtered three times through the 'Whatman Hardened' Filter paper (Part #:1450-050).
2. Please ensure for Light Scattering analysis that the TCB (with stabilizer added), is filtered as recommended in 'Special note #1' above and then also filtered a further three through the 'Whatman Anodisc 47' filter paper (Part #: 6809-5002).

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.agilent.com/chem/techsupp>
- Need supplies? - <http://www.agilent.com/chem/supplies>

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Document Control Logs

Revision Log

Revision	Date	Reason For Update
Rev.1	23/08/13	Created by Andy Woods

Approval Log

Revision	Approver	Title of Approver
Rev.1	Ben MacCreath	Product Manager