

700 Series ICP-OES 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.
- Please follow the site preparation instructions provided in Site Preparation Guide, part number G8460-90000. This document is only an overview of the main requirements.
- Agilent Technologies service providers will not install your Agilent 700 ICP-OES system until an adequate exhaust system is present and functioning. See Environmental Conditions section.

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.

- This checklist includes information on these products: G8460AA, G8461AA, G8462AA, G8463AA, G8464AA, G8465AA, G8466AA, G8467AA, G8468AA, G8469AA and G8470AA.

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 Agilent 700 Series ICP-OES, its data system and accessories will be delivered to your site in large and small shipping containers. Note the size of the largest shipping container below.
2. The containers will be delivered in a large truck. You must furnish a forklift, or other suitable lifting device, and make arrangements to unload the truck and transport the containers to your site. All doorways, hallways, floors and elevators must be able to accommodate the largest, heaviest container. Do not open any of the shipping containers unless a representative of Agilent Technologies is present.

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs	cm	in	cm	in	cm	in
Largest shipping container	285	629	142	56	96	37.8	166	65.5
700 ICP-OES Mainframe	203	448	99	39	75	29.5	137.5	54.5

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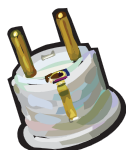

Environmental Conditions

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 and cold (e.g., direct sunlight, heating/cooling from air conditioning outlets, drafts and/or vibrations). The site's ambient temperature conditions must be stable for optimum performance, It needs to be held constant to within ± 2 °C
2. Maximum altitude up to 3050 m.
3. **Recommended exhaust and venting requirements** include:
6.0 m³/min minimum (200 ft³/min).
Exhaust flow must be continuous as long as the plasma is ON.
Exhaust flow must be stable: maximum fluctuation of $\pm 5\%$ of target flow.
4. User safety requires that the exhaust gases from the plasma be vented externally to the building and not re-circulated by the environmental control system. Health hazards include chemical toxicity of solvents and samples.
5. The customer is responsible for supplying the ductwork between the instrument and the lab extraction system.

Instrument Description	Operating temp range °C (F)	Operating humidity range (%)	Heat Dissipation (Watts)	Heat Adsorbed (Watts)
700 ICP-OES	20-25 (68-77)	8-80, non-condensing, non corrosive	3,650	
PC Monitor			430 (PC:365, Monitor:65)	
Agilent Chiller (G8481A)			2,000 max	1000 max Axial 200 max Radial
Extraction Vent				1,200 max

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Power Consumption

Special Notes

1. If a computer system is supplied with your instrument, be sure to account for those electrical outlets.
2. Installation requires an isolated, noise free ground.
3. Instrument ships with NEMA L6-30P twist lock power plug for the following countries: Japan, Korea, Taiwan, US, and all Americas (North, Central and South American countries).
4. Instrument ships with IEC 60309 power plug for all other counties.
5. Do not use extension cords with Agilent Technologies equipment. They cannot provide enough power to the system and can be a safety hazard. If the desired location of equipment does not permit its standard power cord to reach an electrical outlet, your electrician should install additional outlets. Otherwise, you should relocate the equipment closer to existing electrical outlets.

Instrument Description	Line Voltage & Frequency (V, Hz)	Maximum Power Consumption (A)	Nominal rating (VA)
700 ICP-OES,	208 VAC ±10%, 50/60Hz 220 VAC ±10%, 50/60Hz 240 VAC ±10%, 50/60Hz	28	5100
PC Monitor Printer	100-127Vac 200-240Vac	10 5	
Agilent Chiller (G8481A)	120 VAC, 60Hz 240 VAC, 50Hz	16 8.9	1920 2140
SPS 3 Autosampler	100-240 VAC ±10%, 50-60	<1	220
ASX-500 Series Autosampler	85-264Vac	<1	40

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Cooling Water Requirements

Special Notes

1. The preferred cooling system is the Agilent Chiller (G8481A), filled with Poly-Clear Fluid (G3292-80010).
2. If you are not using the preferred system, and another type of water re-circulator is used, the reservoir should be filled with distilled water having a conductance in the range of 50 to 150 μ S.
3. Distilled water will keep the system clean. Do not use tap water as it will contaminate the system and do not use deionized water as it will corrode the system.

Cooling Water Parameter	Specification
Heat to be dissipated	1,000W Axial 200W Radial
Flow Rate	> 1.1L/min (0.3 us gallons/min) Inlet pressure 55-310kPa (8-45psi)
Temperature	20°C recommended at water inlet of ICP-OES Maximum of 30°C for 720 and 45°C for 710
Conductivity	50-150 μ S at the chiller reservoir
Connections	Hoses 3m (10 feet) long, The inner diameter of the supply hose is 9.5mm (3/8 inch) the inner diameter of the return hose is 7mm (1/4 inch)

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Gas Requirements
Special Notes

1. The gas regulators should be within 1.8 meters (6 feet) of the 700 ICP-OES.

Compressed gas	Purity	Compressed Gas Assoc. Standard	Typical Working Pressure kPa (psi)	Consumption (L/min)
Argon	≥99.996%	CGA 580	400-600kPa (57-88 psi) Recommended 550kPa (80 psi)	Standby 0.75 L/min Operational range 9-32.8 L/min
Optional Nitrogen Polychromator Purge Gas	≥99.996%	CGA 580	400-600kPa (57-88 psi) Recommended 550kPa (80 psi)	Standby 0.45 L/min Operating 2.1 L/min
Optional Oxygen for AGM1	≥99.99%	CGA 540	300-700kPa (43-100 psi) 300kPa (43 psi) recommended	0.6l/min maximum

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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