Agilent CrossLab
From Insight to Outcome

Agilent CrossLab Start Up Services

Agilent 405TS and 405LS 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.

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Agilent

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 (e.g., sampling products, etc.) for site preparation requirements.

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Customer Responsibilities

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

- The customer site will have rules on PPE requirements. Please communicate these rules to the visiting Agilent representative before the day of the visit.
- 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 and location** of electrical outlets).
- The liquid disposal requirements related to the product (e.g., drain for direct drain module and access for liquid disposal)
- The **required operating supplies** necessary for the product and installation.
- IT readiness for computer setup if using LHC with the 405, including internet connectivity. If this is not feasible, please connect with your Agilent contact.
- 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.

Important Customer Web Links

- To access Agilent training and education, visit http://www.agilent.com/chem/training 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
- For product information visit https://www.agilent.com/en/product/cell-analysis/microplate-automation-detection/microplate-washers-dispensers/biotek-405-ts-washer-1623265
- Technical Support e-mail is bio.tac@agilent.com.

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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

- Plan for additional space requirements if the 405 is to be used with other instrumentation.

The following table provides dimensions and weight requirements.

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs.	cm	in	cm	in	cm	in
405TS/LS	15.42-17.69	34-39	25.4	10 (14.5 Q models only)	48.26	19	35.56	14
Supply Bottle (1-4) (Varies)	0.45	1.0	Varies	Varies	Varies	Varies	Varies	Varies
Supply & waste bottle rack (one rack)	0.64	1.4	30.48	12	17.78	7	42.42	16.7
Waste Bottle	0.82	1.8 (1 of 2)	38.1	15	17.78	7	42.42	16.7
Standard Vacuum Pump	7.35	16.2	18.26	10.5	13.16	11	17.68	9.5
Hi-Flow Vacuum Pump	11.0	32	198	10.5	243	10	239	16
Direct Drain Vacuum Pump (Optional)	3.63	8	28	11	12	4.75	15.2	6
Bottom filtration module	2.27	5.0	20.32	8	17.78	7	35.56	14

Equipment Positioning on the Bench

- The 405 dispense bottles, buffer switching module, and bottom filtration module should be positioned on the benchtop with the instrument. Waste bottles, vacuum pump, and Direct Drain are best placed on the floor under the bench.

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 and 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 Temperature Range °C (F)	Operating Humidity Range %
405TS/LS	10 – 40 (50 – 104)	The instrument should be operated in a non-condensing humid environment having a maximum relative humidity of 80% at temperatures up to 31 degrees Celsius decreasing linearly to 50% relative humidity at 40 degrees Celsius.
Standard Vacuum Pump	10 – 40 (50 – 104)	The pump shall meet all safety, functional, and performance requirements while operating in a non-condensing humid environment having a maximum relative humidity of 80% at temperatures up to 31° C decreasing linearly to 50% relative humidity at 40° C
Hi-Flow Vacuum Pump	10 – 40 (50 - 104)	30-85

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
405 LS/TS	100-240, 50-60	264	200
Standard Vacuum Pump	115, 50-60	460	380
Hi Flo Vacuum Pump	115, 50-60	391	340
Direct Drain Module (Optional)	100-240 V, 50-60		40

- It is important that the outlets and power strips used are provided uninterrupted power so that extended kinetic experiments are not interrupted. Contact your institution's facilities team if you are concerned about whether your chosen outlets are sufficient.
- 1 outlet plug required, 2 if using a direct drain as well.
- Use the correct power cord.

Required Operating Supplies by Customer for Installation

Special notes

- For information on Agilent consumables, accessories, and laboratory operating supplies, please visit: BioTek is now Agilent | Agilent

Item Description (including Dimensions etc.)	Vendor's Part Number (if applicable)	Recommended Quantity
DI Water		< 200mL
70% Ethanol		< 200mL
Container for non-hazardous waste		1
CE certified power strip with 1800-watt minimum rating (120V/15A or 240V/7.5A).to accommodate up to five (5) power supplies for fully loaded models (including controller).		1

Special Requirements and Other Considerations

Waste liquid and gas management

- Customer will determine how to manage the liquid waste from the instrument.

Tools

Your Agilent instrument comes with a few basic tools and consumables which are relative to the specific configuration of your system.

Tools (provided)

- Fuse 5 Amp
- 5/32 hex wrench
- 5/16 wrench
- 3/8 wrench
- 9/64” hex wrench
- Styli for cleaning out manifold tubes

Tools (recommended)

- None

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.

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

Site Preparation Verification

Service Request Number:	Date of Review:
Service Engineer Name:	Customer Name:
Service Engineer Signature:	Total number of pages in this document:

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