Agilent CrossLab
From Insight to Outcome

Agilent CrossLab Start Up Services

Agilent MultiFlo FX
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 necessary laboratory or bench space is available.
- The required **environmental conditions for the lab** as well as laboratory gases and tubing.
- The **power requirements** related to the product (e.g., **number & location** of electrical outlets)
- The liquid disposal requirements related to the product (e.g., drain for direct drain module and access for liquid disposal).
- IT readiness for computer setup if using LHC with the MultiFlo FX, including internet connectivity. If this is not feasible, please connect with your Agilent contact.
- 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.

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
- To contact a MultiFlo FX service representative, e-mail a message to bio.tac@agilent.com.

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 requirements if the MultiFlo FX is to be used with other instrumentation.
- Plan on how to deal with liquid waste from the MultifloFX.

The following table provides dimensions and weight requirements. Measurements for the main unit do not include attached optional modular accessories. All lengths include room required to plug in the power/communication cords and tubing.

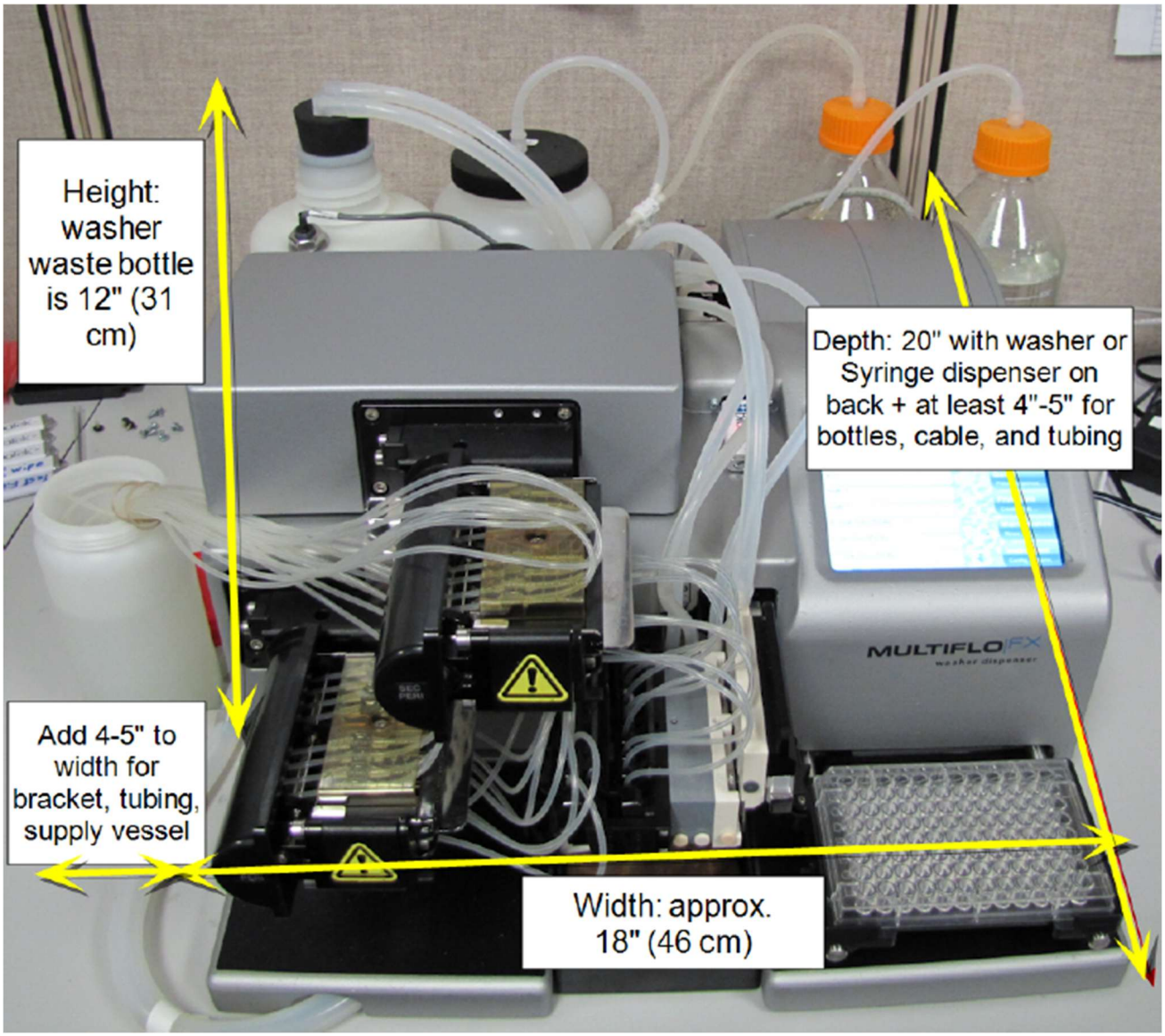
Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs.	cm	in	cm	in	cm	in
MultifloFX	9.16	20.2	26.67	10.5	33.02	13	45.72	18
Secondary Peripump (Optional Module)	1.72	3.8	8.25	3.25	31.75	12.5	22.2	8.75
Dual Syringe Pump (Optional Module)	2.36	5.2	10.2	4	24.1	9.5	18.42	7.25
Washer Box Module (Optional Module)	1.54	3.4	12.7	5	21.59	8.5	24.13	9.5
RAD Module (Optional Module)	0.91	2.0	negligible	negligible	negligible	negligible	negligible	negligible

Instrument Description	Weight		Height		Depth		Width	
	Kg	lbs.	cm	in	cm	in	cm	in
Washer Waste Bottle Varies, 2L standard (Optional)	0.45	1	30.48	12	12.7 (diameter)	5 (diameter)	12.7 (diameter)	5 (diameter)
(2x) Supply Bottles 1L (Syringe, Optional)	0.54	1.2	27.94	11	10.16 (diameter)	4 (diameter)	10.16 (diameter)	4 (diameter)
Supply Bottle 2L (Washer, Optional)	0.09	.2	25.4	10	12.7 (diameter)	5 (diameter)	12.7 (diameter)	5 (diameter)
Direct Drain (Optional)	2.54	5.6	2.95	6.5	2.95	6.5	5.22	11.5

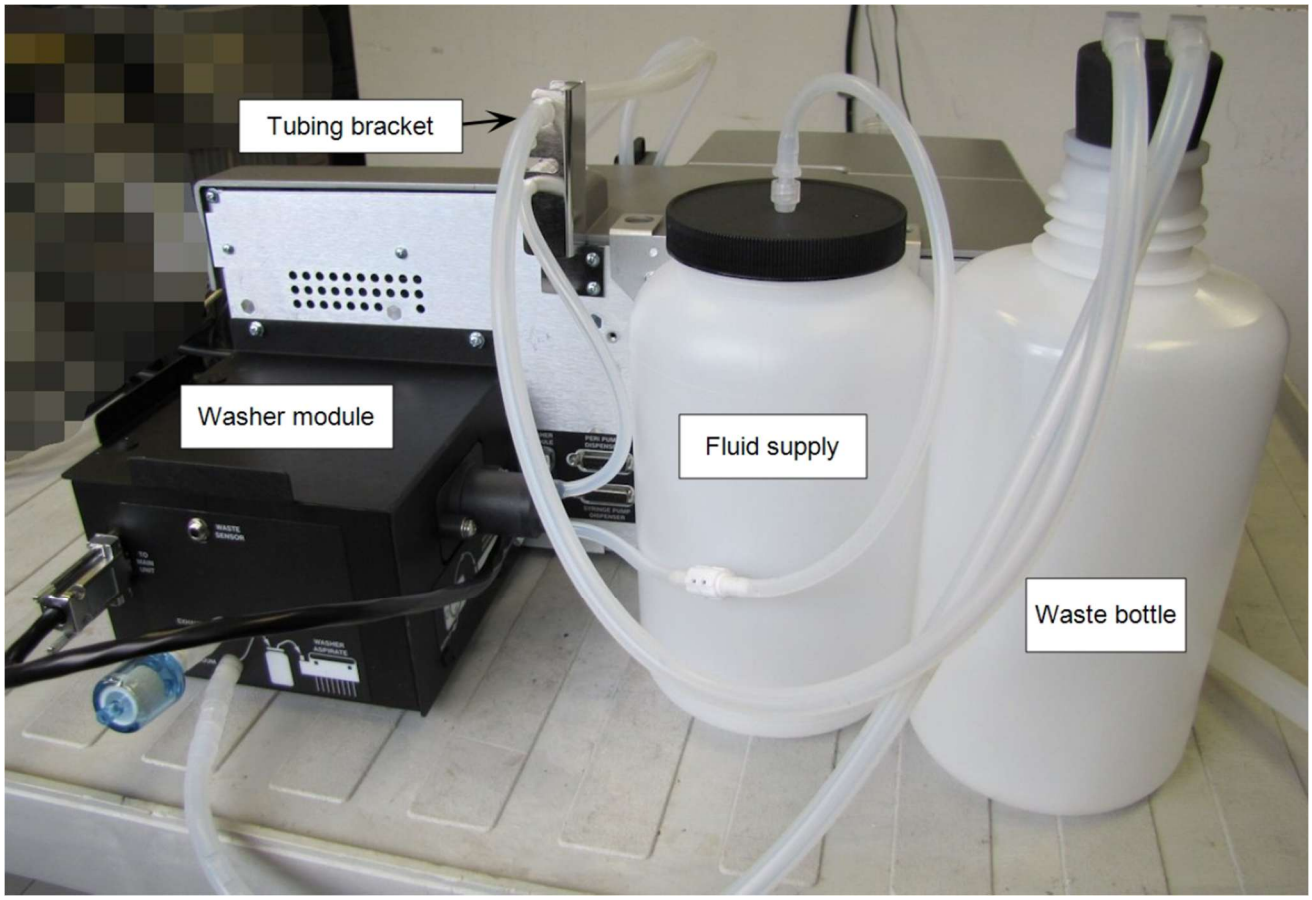
Equipment Positioning on the Bench

- Supply bottles and washer accessory waste bottles should be placed at the same level as the MultifloFX. The main instrument comes with 48 inches (121.92 cm) waste tubing only. The customer can determine how to dispose of the waste coming from the tubing. Waste bottles, vacuum pump, and Direct Drain are best placed on the floor under the bench.

Example of front of Multiflo FX with Secondary Peripump, Dual Syringe Module, and Washer Module



Example of back of Multiflo FX with Washer Module Accessory



- Reference MultiFlo FX User Manual for additional information.

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 %
MutlifloFX	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°C decreasing linearly to 50% relative humidity at 40°C.

Exhaust Venting Requirements

The instrument has a fan to cool internal electronics. If this is blocked or the ambient environment temperature is raised, it could affect the operation of the instrument.

Power Consumption

Special notes

- If a computer system is supplied with your instrument, be sure to account for those electrical outlets.
- It is important that the outlets used are provided uninterrupted power so that long kinetic experiments on the instrument are not interrupted. Contact your institution's facilities team if you are concerned about whether your chosen outlets are sufficient.

Instrument Description	Line Voltage and Frequency V, Hz	Maximum Power Consumption VA	Maximum Power Consumption W
MultifloFX	100 – 240 V, 50 – 60 Hz	135 – 145 VA	120
Direct Drain Module (Optional)	100 – 240 V, 50 – 60 Hz	135 – 145 VA	120

- 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: https://www.agilent.com/en/product/cell-analysis/microplate-automation-detection/reader-liquid-handling-supplies.

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).		1

Special Requirements and Other Considerations

Waste liquid and gas management

- Customer will determine how to manage the liquid waste.

Tools

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

Tools (provided)

- 7/64 Hex head Alan wrench (taped to carrier)
- 3/32 Hex head Alan wrench (only provided with MFXP2R models or optional Periwash accessory)
- Phillips head screwdriver (small, only provided with optional secondary Peri-pump)

Tools (required)

- Phillips head screwdriver (small)
- Scissors or knife to cut tubing to desired length
- Small flathead screwdriver (modules only)

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: