Agilent Fragment Analyzer Systems
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.

List of applicable systems for this checklist.

Description	System Product Number	Instrument Model Number
5200 Fragment Analyzer	M5310AA	FSv2-CE2F
5300 Fragment Analyzer	M5311AA	FSv2-CE10F
5400 Fragment Analyzer	M5312AA	FSv2-CEFA

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 environmental conditions for the site as well as laboratory gases, plumbing and extraction.
- ❑ The power requirements related to the product (e.g. number and location of electrical outlets).
- ❑ The required operating supplies necessary for the product and installation.
- ❑ 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.
- ❑ Please consult the Special Requirements section for other product-specific information.
- ❑ **A minimum of one Analysis Kit must be ordered from Agilent separately and available during the system installation.**
- ❑ **The Verification Kit (#DNF-FSEW-OQ) must be ordered from Agilent separately and available during the system installation.**

Customer Information

1. If you have questions or problems in providing anything described as a Customer Responsibility, please contact your local Agilent or partner support service organization for assistance before the scheduled installation. In addition, Agilent and/or its partners reserve the right to reschedule the installation dependent upon the readiness of your site.
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 extra training, compliance services and consultation for user-specific applications may also be provided at the time of installation. Please discuss with your Agilent Sales representative before the installation is scheduled.

Important Customer Web Links

- **Need technical support, FAQs, supplies? – visit our webpage:**
  https://www.agilent.com/en/contact-us/page

Dimensions and Weight

Identify the laboratory bench space before your instrument arrives based on the following table.

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**.

Special notes

- The total bench space required for a configuration of the system including the computer is 40” W x 24” D x 34” H.

Instrument description	Weight		Height		Depth		Width	
	kg	lbs	cm	in	cm	in	cm	in
5200/5300/5400 Fragment Analyzer System	39	86	86.4	34	61	24	101.6	40

Environmental Conditions

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

Special notes

- For indoor use in a normal laboratory environment.
- 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 laboratory's ambient temperature conditions must be stable for optimum performance.
- For proper ventilation, at least 2-4" of space should be provided on the other sides of the instrument.

Instrument description	Operating temperature range °C (F)	Operating humidity range (%)
5200/5300/5400 Fragment Analyzer	15 – 25° C	< 80% (non-condensing)

Power Consumption

Special notes

- If a computer system is supplied with your instrument, be sure to account for those electrical outlets.
- The circuit should be clear of erratic loads or power spikes. **The use of a surge protection device is highly recommended.**
- A minimum of three (3) standard electrical wall outlets should be available to connect the instrument, computer and accessories. A power strip may be used in place of separate wall outlets if needed.
- It is recommended to place the system and supplied computer on a double conversion Uninterrupted Power Supply (UPS). Agilent recommends "TrippLite" model SU1500XL.

Instrument description	Line voltage and frequency (V, Hz)	Maximum power consumption (VA)	Maximum power consumption (W)
5200/5300/5400 Fragment Analyzer	100-200 VAC; 50 - 60 Hz (200-230 VAC; 50 - 60 Hz Available)	~110 VA	90

Required Operating Supplies by Customer for Installation

DNA or RNA Analysis Kits

- **A minimum of one Analysis Kit must be ordered from Agilent prior to system installation.**
- An up-to-date list of all available Analysis Kits can be found at https://www.agilent.com/en/contact-us/page.

System Verification Kit

- **A Verification Kit (#DNF-FSEW-OQ) must be ordered from Agilent prior to system installation.**

Compatible Sample/Marker 96-Well Microplates

- A list of approved semi-skirted PCR plates is provided below. Contact Agilent regarding the compatibility of any plate **NOT** listed below.
- Plates required for installation are included in the mandatory kit #DNF-FSEW-OQ (Quantity: x5).
- NOTE: Non-Skirted PCR plates are **NOT** recommended for use with this system, as they tend to warp or bow and can therefore interfere with proper sample injection.

Item description (including dimensions etc.)	Vendor's part number (if applicable)
Eppendorf* 96-Well twin.tec* PCR Plates, Semi skirted	Eppendorf # 951020303 (various colors)
Pryme PCR Ergonomic Plates, 96x0.2ml, Semi Skirted, Natural	MidSci Pryme # AVRT1
Hard-Shell® Full-Height 96-Well Semi-Skirted PCR Plates	BioRad Hard-Shell # HSS-9601
96W PCR Microplate, Polypropylene, Half-Skirt, natural, no lid	Greiner Bio-One # 652280
FrameStar® 96 semi-skirt	4titude Framestar # 4ti-0900, -0950, -0770/C
96-Well "Semi Skirt UltraFlux® PCR Plate	Scientific Specialty # 3450-00

Compatible Strip Tubes

- A list of approved 0.2 mL Strip Tubes is provided below. Contact Agilent regarding the compatibility of any Strip Tube **NOT** listed below.
- If using only Sample/Marker Plates these items are not required.
- NOTE: Strip Tubes must be used with the Strip Tube Hotel Adapter (Sold Separately #F1300-107).

Item description (including dimensions etc.)	Vendor's part number (if applicable)
0.2 mL PCR Strip Tubes Thermo Scientific Abgene 0.2 mL Strip Tubes, 12-Tube Strip	Fisher Scientific # AB-1113
0.2 mL PCR Strip Tubes Thermo Scientific Abgene 0.2 mL Strip Tubes, 8-Tube Strip	Fisher Scientific # AB-0266

Compatible Buffer and Waste 96-Well Microplates

- The Fragment Analyzer system uses a specific deep 96-well plate (31 mm height) supplied by Fisher Scientific (Part # 12-566-120) for the buffer and waste plate. This specific plate **MUST** be used with the instrument (two plates are supplied with the instrument).
- **Standard 1 mL deep well, half height or square well 1 mL 96-well plates should NOT be used as buffer/waste plates with the Fragment Analyzer system as damage to the capillary array will occur.**

  The same specified buffer/waste plate is also available directly from Agilent, in the event these plates cannot be obtained directly from the manufacturer.

Item description (including dimensions etc.)	Vendor's part number (if applicable)
Buffer/Waste Deep 96-WellPlates Fisherbrand* 96-Well DeepWell*Polypropylene Microplates; Well Capacity: 1 mL	Fisherbrand # 12-566-120
Agilent Buffer/Waste Deep 96-WellPlates Fragment Analyzer 96-Well Buffer/Waste Tray, case of 50	Agilent # P60-20

Reagents

- The following reagents should be available in the client laboratory upon system installation.

Item description (including dimensions etc.)	Vendor's part number (if applicable)	Recommended quantity
100X TE Buffer: Stock solution for dilution of samples or markers with 1X TE.	Sigma # T9285 Fisher Scientific # BP1338-1 or similar	100 mL
Deionized, sub-micron filtered water: For dilution of Inlet Run Buffer and Capillary Conditioning Solution concentrates and flushing capillary array.	Any qualified vendor	1 L
0.5 M NaOH solution, volumetric, 0.5 M NaOH (0.5N)	Sigma #35257 or similar	100 mL

Liquid Handling (Optional)

- Similar tools/consumables should be available in the client laboratory upon system installation.

Item description (including dimensions etc.)	Vendor's part number (if applicable)
Multichannel pipettor capable of dispensing 1.0 mL into buffer deep well plates; multichannel pipettor capable of dispensing 1-100 µL into sample or marker PCR	Any qualified vendor
Disposable Transfer Pipets, Graduated, Samco® Scientific	VWR # 14670-200
4.8 mL B/B-PET* Transfer Pipets (Blood Bank), Non-sterile, graduated to 2.0 mL	Fisher Scientific # 13-711-42
VWR® Disposable Pipetting Reservoirs 50 mL, Polystyrene, White, Sterile	VWR # 89094-680
VWR® Disposable Pipetting Reservoirs, 25 mL, Polystyrene, White, Sterile	VWR # 89094-662
RNase/DNase free tips	Any qualified vendor

Special Requirements

Lifting and moving equipment

The instrument will be delivered with its accessories in one pallet type box. Agilent personnel will unpack the box in your presence and might request assistance to lift heavy instrumentation. Please make sure you have necessary resources to assist in lifting. In addition, please move the pallet type box close to its destination before installation. If you do not have the required resources available, please contact us as soon as possible and we assist in finding a suitable contractor to move the equipment on your behalf.

Correct Reagent and Kit Storage

The reagents used to operate the system require various storage conditions including refrigeration (4°C), freezing (-20°C), and room temperature. The specific storage conditions are listed on the respective item label. Adequate facilities for storing consumables should be available for use in the client laboratory to maintain shelf life and performance of all reagents. The freezer used should NOT be a frost-free model, to avoid repetitive temperature cycling.

Additional recommendations for 96-well plate preparation

The following items are used to assist in preparation of marker, ladder and/or sample PCR plates. Mineral oil can be used to cover marker wells to prevent evaporation and enable many injection cycles; sealing film is useful for protecting plates from ambient particulates between use. Note that a small amount of mineral oil and several plate seals are provided on installation; the following table lists some sources for reordering these items. A benchtop vortexer is recommended for thorough mixing of samples following addition of sample to the Diluent Marker solution. A plate centrifuge is very useful for spinning plates following sample/marker/ladder plate preparation, to effectively eliminate bubbles, which can cause injection failures.

Item description (including dimensions etc.)	Vendor's part number (if applicable)
Mineral oil, light	Sigma-Aldrich # 330779
96-Well PCR Tray Sealing Film VWR® Heat Resistant Films for PCR, Polypropylene	VWR # 60941-070 or comparable
96-Well Plate Vortexer	Any qualified vendor; e.g. Scientific Industries # SI-0400A
96-Well Plate Centrifuge Mini PCR Plate Spinner, Hold 2 Plates, Speed: 2500rpm (500 x g)	Any qualified vendor; e.g. Phenix Research. Products # C-1000

