



HP Scitex FB500 Printer
HP Scitex FB700 Printer

Site Preparation Guide

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Using this guide

This guide specifies how to prepare the customer site to receive the HP printer.

Safety hazard warning conventions



The safety hazard warning conventions used in this guide are classified into the following categories:

Warning and Caution:

-  **WARNING!** Warning is used to identify conditions or actions for which there is a known risk, which may cause serious – or even fatal – injury.
-  **CAUTION:** Caution is used to identify conditions or actions for which a potential hazard may exist, which will or can cause minor personal injury or equipment damage.

Other conventions

The following conventions are used to draw your attention to important points:

-  **NOTE:** Notes are used to identify an explanation, or provide additional information for purposes of clarification.
-  **TIP:** Tips provide useful shortcuts or recommendations.

Acronyms

The following acronyms are used in this document:


Acronym	Definition
ESD	Electrostatic Discharge
RIP	Raster Image Processor
UPS	Uninterruptible Power Supply
VAC	Volts Alternating Current
VOC	Volatile Organic Compound

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1 Introduction

System configuration

 **NOTE:** The printer's physical dimensions and weight are provided in the [Specifications on page 12](#).

The printer is configured in three main modules:

- Printing module – ink system components and accessories, including: print head assembly, print head carriage, and ink supply. Ink cartridges are not included with the printer. They must be ordered and purchased separately. Printing with white ink requires the optional HP Scitex FB500 White Ink Upgrade Kit, part number CQ118A.
- Mechanical module – components that control head carriage and media movement.
- Software and controller module – operator control components via an easy-to-use control panel.

The printer is supplied almost fully assembled and ready for installation by your HP representative. The user documentation is included on a CD-ROM.

Customer responsibilities

This guide explains the following preparations that must be made by the customer before the printer can be installed:

- [Electrical requirements on page 3](#)
- [Facility requirements on page 4](#)
- [Computer and networking requirements on page 8](#)
- [Receiving logistics on page 8](#)

The customer is also responsible for all pre-installation preparations not specifically provided for in the sales contract. These may include the following:

- Submission of the signed Pre-Installation Checklist to the regional HP support manager a minimum of 14 days prior to the scheduled installation date.
- Order and receiving the ink, cleaning solution (head flush or alternative), and rigid media suitable and in time for performing the initial printer setup.
- Cost of building, and/or modifications to the installation site.
- Scheduling the services of a specialist moving contractor to unload and move the equipment on the scheduled installation date.
- Final preparation and site cleaning prior to installation.
- Familiarity and compliance with all applicable local laws, regulations, and standards, including those regarding waste ink disposal and volatile organic compounds (VOCs).

Safety information

- UV light — the ultraviolet (UV) curing lamps emit high power UV light. The printer must be operated with all safety shielding installed to protect the operator from eye and skin damage. When operated according to manufacturer's instructions, safety glasses or other protective clothing are not necessary.
- Mechanical hazards — Keep fingers away from carriage and media path. Use a fork lift truck to lift the printer. Do not exceed the maximum weight load of the input or output tables, as printed on the label.
- Ink — read and practice safety guidelines as outlined in the Material Safety Data Sheet (MSDS) for the ink, and post the document in the work area as required by prevailing law. Avoid any contact with skin and eyes. None of the component substances have established exposure standards per OSHA, NIOSH or ACGIH. Collect waste ink in container provided. Dispose of ink according to MSDS and local regulations. Keep the waste-ink spigot closed during printing.
- Special ventilation is not required to meet US OSHA requirements on occupational exposure to VOCs from the HP UV-curable inks used with the printer. Special ventilation equipment installation is at the discretion of the customer; no specific HP recommendation is intended. Customers should consult state and local requirements and regulations.
- Electrical — WITH THE POWER SWITCH IN THE OFF POSITION, POWER MAY STILL BE SUPPLIED TO THE PRINTER COMPONENTS. To completely cut power from the printer, you must unplug the power cord from the power outlet.
- Ozone — the high power UV light emitted by the curing lamps reacts with oxygen and produces ozone. This formation tends to be greatest during lamp start-up. The lamps include ozone filters to reduce ozone production. The printer should be operated in a well-ventilated area to avoid minor effects such as headaches, fatigue, and dryness of the upper respiratory tract. Normal air movement will mix the ozone with fresh air, causing it to revert back to oxygen.
- Hazardous waste — THE PRINTER ELECTRONICS ASSEMBLY CONTAINS A LITHIUM BATTERY DEVICE. THERE IS A DANGER OF EXPLOSION IF THE BATTERY IS INCORRECTLY REPLACED. The battery must be replaced only by authorized service providers, and must be replaced only with the same or equivalent type. Dispose of this lithium battery device in accordance with local, state (or province), and Federal (or country) solid waste requirements.

2 Site planning

Installation time schedule

The average time required for installing the printer is two working days. This is based on the assumption that all system parts have been delivered in proper working order, and that all site preparation and planning requirements have been met and completed, in accordance with the specifications and recommendations provided in this guide.

Installation and training has been divided into three stages, as shown in the table below. Although the time schedule requires approximately five working days, the operator should nevertheless be aware of the possible need to extend the training period, in accordance with specific circumstances.


Table 2-1 Installation and training schedule

Stage	Duration
Unpacking and Installation	2 full working days
Basic training	1.5 days
Practical training	1.5 days

The printer operator must be available for the entire duration of all installation procedures, and must attend the training sessions. The installer will require at least one additional person (usually the printer operator) to assist during certain stages of the installation.


Electrical requirements

The required electric circuit must be installed by a qualified electrician before the printer can be installed. The printer is supplied with the required power cord, which must not be lengthened or connected to an extension cord. See [Specifications on page 12](#) for details.

 **NOTE:** Failure to prepare the electrical circuit as required will prolong the installation process until the deficiencies are corrected. To avoid these delays, have a qualified electrician read the specifications section carefully, understand your facility's electrical power, and install the circuit per the specifications.

The AC input provided to the printer must be clean and constant at the specified voltage and frequency. The electronic control components are powered with a single-phase line that can be used with an Uninterruptible Power Supply (UPS). HP highly recommends that you use a UPS to ensure that the AC input power to the printer is continuously within specifications. The UPS must be a single-phase UPS capable of sourcing a minimum of 3000 VA, at a voltage in the range of 200-240 VAC, 50/60 Hz, and a maximum current rating of 12 Amps. The UPS must have the proper receptacle as specified in this document. Connect the UPS to the facility wall outlet, and connect the printer power cord to the UPS.

Locations with unstable electric power or frequent power outages must use a UPS with the printer.

 **CAUTION:** The customer must ensure that the UPS is rated to meet the power requirements of the printer, is in accordance with the wiring standards of the country of installation.

Facility requirements

When planning a site, attention to detail will help to ensure smooth installation of the printer. Special considerations should be made in terms of any building construction or modifications required, as well as to the time required for submission and approval of plans to the relevant local authorities.

The space selected should be suitable for the following activities:

- Printing
- Handling sheets and rolls of blank media
- Handling printed output
- Loading and changing ink
- Servicing and cleaning the printer, and replacing components
- Operating the external RIP, local area network, and workstations

In considering the appropriate room layout of the print production area, take the following objectives into account, to help provide a safe and suitable working environment and facilitate a smooth and productive work flow:

- Space around the printer – sufficient access to work and load and unload large sheets or rolls of media
- Sufficient space above the printer for the installation of ventilation if desired
- Emergency exits – suitably positioned and easily accessible
- Safety requirements – first aid station, emergency eye wash station
- Fire extinguishers — a fire extinguisher certified for electrical fires must be in the print production area. Another fire extinguisher must be placed in the substrate storage area.
- Lighting — the print production area should be well lit to provide the operator with optimal conditions for checking print production (color, alignment, etc.). If there is insufficient natural light, the installation of supplementary artificial lighting is recommended.
- Do not install the printer where it will be exposed to direct sunlight or a strong light source.
- Do not install the printer in a dusty environment. Remove any accumulated dust before moving the printer into the area.

△ **CAUTION:** All cables connected to the printer should be properly installed according to local building codes and standards. Tripping over loose wires or cables can cause personal injury or damage to the equipment.

Temperature and humidity in the print production and storage areas affect the print output results. Not maintaining the recommended values as shown in the specifications may have an adverse effect on print quality or damage sensitive electronic devices in the system components.

Very low relative humidity increases the risk of damage to sensitive electronic devices caused by Electrostatic Discharge (ESD). Excessive humidity may also cause corrosion problems and moisture contamination within the equipment.

Floor requirements

When planning the print production area, it is important to ensure that the floor surface is solid, smooth, level, and free from any holes or indentations. Floor covering material should be durable and easy to clean.

Floor load-bearing capabilities in the print production area are an essential consideration. This will require consulting the structural engineer for the building in which the printer is to be installed. See the [Specifications on page 12](#) for the shipping and assembled weights of the printer.

During installation, the printer and media tables will be leveled to ensure accurate media feeding. The printer and table feet can be adjusted to compensate for a maximum floor slope (elevation change) of 5.6 cm (2.2 in) over the printer width, and 5.1 cm (2.0 in) over the printer depth.

Figure 2-1 Features and dimensions (FB500 shown, FB700 similar)

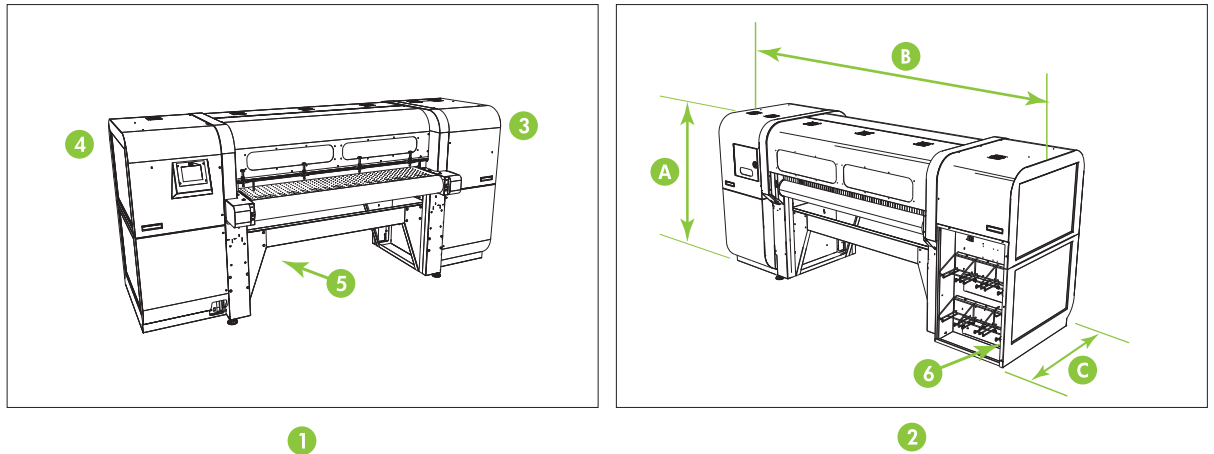


Table 2-2 Printer features

1	Input side
2	Output side
3	Service end
4	User end
5	Power cord inlet
6	Vacuum system auxiliary power outlet

Table 2-3 Printer and table dimensions

		FB500	FB700
A	Height	153 cm (60 in)	153 cm (60 in)
B	Width	325 cm (128 in)	412 cm (162 in)
C	Depth without tables	141 cm (56 in)	141 cm (56 in)
D	Input table depth	52 cm (21 in)	52 cm (21 in)
E	Output table depth	89 cm (35 in)	81 cm (32 in)
F, G	Accessory table depth	165 cm (65 in)	89 cm (35 in)
H	Table width	175 cm (69 in)	262 cm (103 in)
I	Depth with input and output tables installed	282 cm (111 in)	246 cm (97 in)

Table 2-3 Printer and table dimensions (continued)

		FB500	FB700
J	Depth with input, output, and accessory tables installed	612 cm (241 in)	411 cm (162 in)
L	Recommended clear floor space with standard input and output tables installed	Length: 4.0 m (13 ft) Width: 4.5 m (15 ft)	Length: 4 m (13 ft) Width: 5 m (18 ft)
M	Recommended clear floor space with standard input, output, and accessory tables installed	Length: 7.3 m (24 ft) Width: 4.5 m (15 ft)	Length: 5 m (18 ft) Width: 5 m (18 ft)

Figure 2-2 FB500 floor layout dimensions

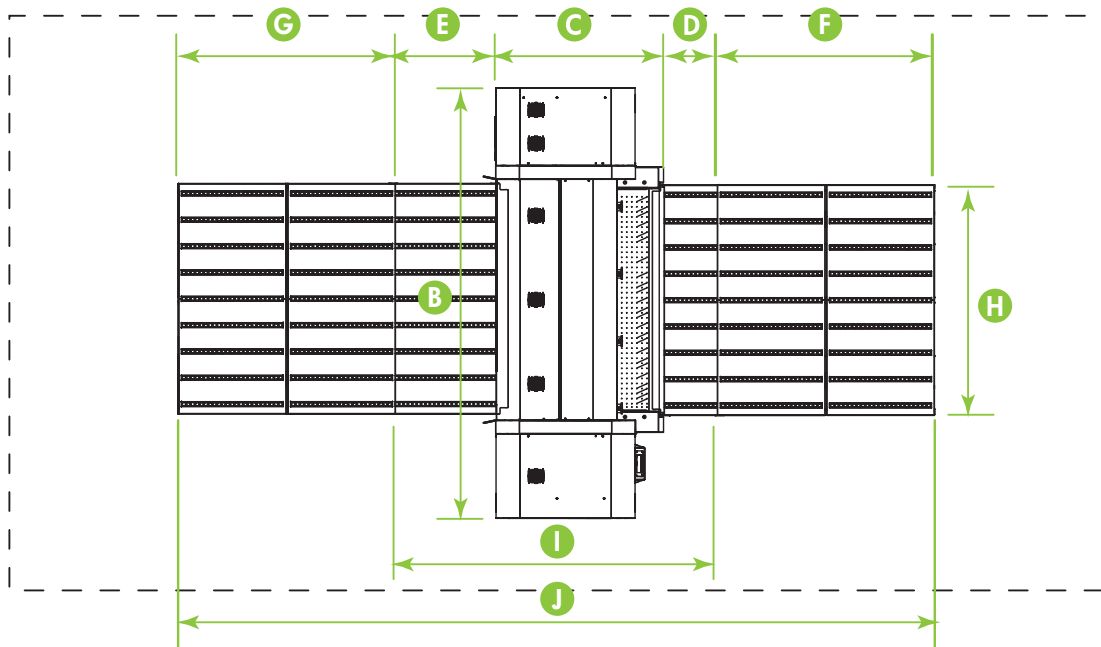
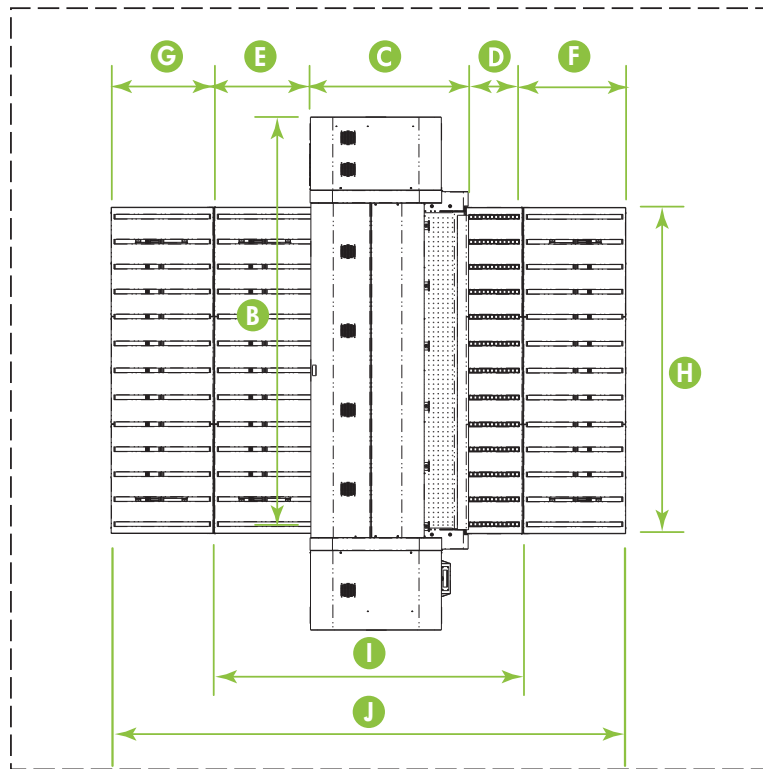


Figure 2-3 FB700 floor layout dimensions



Locate the printer within 1.5 m (5 ft) from the service end, or 3.7 m (12 ft) from the user end, to the facility power outlet or power drop. The main and auxiliary power cords connect to inlets on the electronics box at the user end of the printer. An extension cord should not be used with the main power cable, but may be used with the auxiliary power cord if necessary. A power drop from the ceiling may be used.

△ **CAUTION:** The socket outlet must be installed near the printer and be easily accessible.

Ventilation and fume extraction

The printer ink and printhead flush emit low levels of fumes and odor.

If desired, customers may prepare a solvent-resistant, fire-resistant exhaust fan capable of expelling 1800 CFM of air from the printer to the outside of the building, as well as all necessary duct work prior to the date of printer installation. The customer should work with a heating, ventilation, and air conditioning contractor to ensure that the ventilation system works and complies with local building codes.

Eye wash station

An eye wash station or suitable eye-washing facilities must be provided to be used in the event of emergency, should chemical splashing occur while system operators are handling inks and printhead flush. The provision of these facilities will help to reduce the risk of irritation and possible damage to the eyes and/or skin.

Storage area for materials

You will need an area near the printer to store media and ink, and to finish and package prints for shipment or distribution. For best results, media and ink should be stored in a temperature- and humidity-controlled environment similar to the printer's environment.

Rigid cut-sheet media should be stored flat and not stored for long periods before use. Any warping of this media will increase the likelihood of the carriage striking it during printing, or media feed problems.

Due to the tendency of synthetic rigid media to build up an electrostatic charge, electrostatic discharge (ESD) abatement measures such as raising the relative humidity in the room or draping copper grounding tinsel over the stored media may be necessary.

Inks and solvent containers must be properly sealed and stored in the upright position in a flame-proof storage cabinet.

⚠ WARNING! Do not permit smoking or open flames in the print production or storage areas, and prominently display the appropriate warning signs.

⚠ WARNING! To avoid electrical shocks or burns caused by the use of wrong type of fire extinguisher, make sure your fire extinguisher has been approved for use on electrical fires.

📝 NOTE: It is recommended that substrate rolls remain in their sealed wrapping material when placed in storage. It is advisable to move them from the storage area to the print production area at least 24 hours before use, so that they may reach the required moistness and operating temperature.

Computer and networking requirements

The printer receives print jobs from an external RIP. You must have the RIP software, server hardware, network interface card, and local area network (100Mbit or faster required) available for installation with the printer. Consult your HP representative for a list of supported RIPs. Refer to the RIP documentation for the system requirements.

The printer and RIP should be connected to the local area network via a switch (preferably 1000Mbit or gigabit) or directly to network wall outlets. The customer is responsible for providing the Ethernet cabling for these connections. Network cables are not included with the printer.

CallMe@hp

CallMe@hp is a suite of remote support tools that enables communication between customers and HP. CallMe@hp client software must be installed on a networked computer running Windows XP or Windows Vista. This computer may be your Onyx RIP or another networked computer, but should be near the printer. One available USB port is also required to use the web cam included with the product for use with CallMe@hp.

If you are using the Linux-based Caldera RIP and you wish to take advantage of the CallMe@hp remote-support features, you will require another networked computer that runs Microsoft Windows XP, Windows Vista, or Windows 7 for installation of the CallMe@hp client software.

Receiving logistics

Receiving dock and fork lift required

A fork lift truck with 114 cm (45 in) forks and a 1134 kg (2500 lb) minimum load capacity, and a receiving dock are required to receive the printer from the shipper. Receiving the printer at ground level is not practical. The shipping crate is designed for fork lift handling: it can be pushed or pulled

from the ends, or lifted from the sides as needed. After unpacking, use the shipping casters to move the printer, or lift the printer with a fork lift at the marked lift points.

Building interior clearances required

- △ **CAUTION:** Due to its physical dimensions and weight, the printer cannot be moved through building areas that cannot accommodate a fork lift, such as stairways or standard passenger elevators, or through doorways that are narrower than the width of the printer or crate.

An Authorized Service Provider will install the printer. Depending on the space available at your location, you can either unpack and assemble the printer in your receiving area, then move the printer on its wheels to your production area, or move the shipping container unopened to your production area, and unpack and assemble it there. A technical representative will work with you in advance to plan for receiving, unpacking, and assembling the printer.

The route between the unloading area of the printer and the installation site, including any corridors and doorways through which the printer must be transported, must be clear when the printer arrives. When planning this area, take into consideration:

- Height and width of entrance to unloading area
- Width of any ramps between the receiving area and the installation location
- Height and size of unloading dock

Use the following dimensions and weights as you plan to receive and move the printer to its final location.

Table 2-4 Dimensions and weight of printer as shipped with pallet, crate, and packaging

	FB500	FB700
Length	3.6 m (143 in)	4.4 m (171 in)
Depth	1.7 m (67 in)	1.7 m (67 in)
Height	1.8 m (72 in)	1.8 m (72 in)
Weight	1050 kg (2315 lb)	1223 kg (2695 lb)


Packaging

You must dispose of the crate and packaging material that comes with the printer. Most of these materials are made of wood.

3 Customer Care

HP Customer Care

In case of any question or problem, you should approach your local HP Authorized Representative for consultancy and support. However, if required, you can contact HP directly by using the following methods.

 **NOTE:** For up-to-date contact information, please visit <http://www.hp.com/go/graphicarts>.

North America

Tel: 800 925 0563

Fax: 952 943 3695

E-mail: cs.custsup@hp.com

Europe, Middle East, and Africa

Tel: +32 2 7283444

Fax: +31 207157536

E-mail: LF.MV.Support@hp.com

Asia and Pacific

Tel: +852 8103 2666

Tel: 00 801 85 5945 (Taiwan only, toll-free)

Fax: +852 2187 2218

E-mail: hsap.carecenter@hp.com

Latin America

Please dial Option 2/Option 6 from the selection menu.

Argentina: 5411 470 816 00

Brasil: 52 55 5258-9922

Chile: 562 436-2610 / 800 360 999

Colombia: 571 602 9191 / 01 8000 51 4746 8368

Costa Rica: 0 800 011 0524

Dominican Republic: 1 800 711 2884

Guatemala: 1 800 999 5105

Honduras: 800 0 123 / 1 800 711 2884

Mexico: 52 55 5258-9922

Nicaragua: 1 800 0164 / 800 711 2884

Panama: 001 800 711 2884

Peru: 511 411 2443 / 0 800 10111

El Salvador: 800 6160

Venezuela: 58 212 278 8666 / 0 800 474 68368

CC LAR Nextel: (5255) 1088 0884; ID 52*20115*51

CC LAR e-Mail: carecenter.ipglf.lar@hp.com

CC LAR Fax: +52 55 5258 6377

4 Specifications

Functional specifications

Table 4-1 HP Scitex UV pigment ink supplies

Printheads	2 heads per color: Cyan, Magenta, Yellow, Black, Light Cyan, Light Magenta. White ink option replaces Light Cyan and Light Magenta with White.
Ink cartridges	Cartridges containing 3 liters of ink: Cyan (CH216A), Magenta (CH217A), Yellow (CH218A), Black (CH219A), Light Cyan (CH220A), Light Magenta (CH221A). Cartridges containing 2 liters of ink: White (CQ123A)

Table 4-2 Media sizes

	Minimum	Maximum (FB500)	Maximum (FB700)
Media thickness	0.127 mm (0.005 in)	64 mm (2.5 in)	64 mm (2.5 in)
Sheet size with standard input and output tables	Width: 15 cm (6 in)	Length: 1.2 m (48 in) Width: 1.6 m (64 in)	1.2 m (48 in) 2.5 m (98 in)
Sheet size with standard tables and optional accessory extension tables	Length: 10 cm (4 in) Width: 15 cm (6 in)	Length: 3 m (120 in) Width: 1.6 m (64 in)	Length: 3 m (120 in) 2.5 m (98 in)
Maximum sheet-fed media weight	N/A	68 kg (150 lb)	68 kg (150 lb)
Sheet flatness	Perfectly flat	+/- 0.5 mm (0.02 in)	+/- 0.5 mm (0.02 in)
Roll width	15 cm (6 in)	164 cm (64.5 in)	250 cm (98.4 cm)
Roll diameter	N/A	23 cm on 7.6 cm core (9 in diameter on 3 in core)	23 cm on 7.6 cm core (9 in diameter on 3 in core)
Roll weight	N/A	82 kg (180 lb)	82 kg (180 lb)

Table 4-3 Functional specifications

Print resolutions	RIP supports print modes that include resolutions of 1200x600, 600x600 and 600x300
Minimum Margins	Set by the RIP, can be set to 0 (edge-to-edge) on rigid and roll-fed media
Technology	UV curable inkjet
UV energy source	Dual shuttered UV lamps
Ink drop	Variable size

Table 4-3 Functional specifications (continued)

Printheads	12
Cleaning solution	HP UV Printhead Flush, 1-liter bottle Within California: Methyl Acetate (CAS# 79-20-9).

Physical

Table 4-4 Dimensions and weights

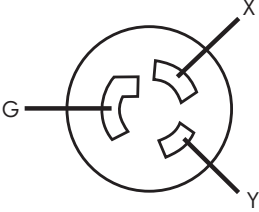
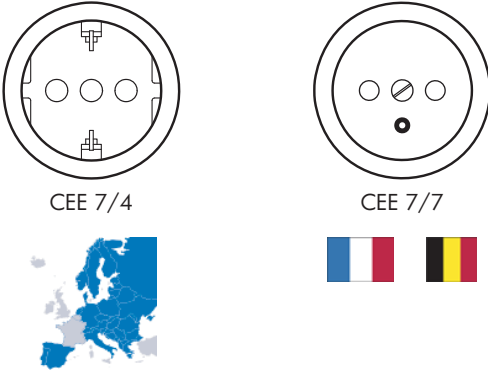
	FB500	FB700
Printer dimensions (assembled)	Height: 153 cm (60 in)	Height: 153 cm (60 in)
	Width: 325 cm (128 in)	Width: 412 cm (162 in)
	Depth: 141 cm (56 in)	Depth: 141 cm (56 in)
	Depth with optional roll-to-roll accessory installed: 161 cm (63.4 in)	Depth with optional roll-to-roll accessory installed: 161 cm (63.4 in)
Input table dimensions	Height: 102 cm (40 in)	Height: 102 cm (40 in)
	Width: 175 cm (69 in)	Width: 262 cm (103 in)
	Depth: 52 cm (21 in)	Depth: 52 cm (21 in)
	Height (folded): 113 cm (44 in)	Height (folded): 117 cm (46 in)
	Depth (folded): 39 cm (17 in)	Depth (folded): 39 cm (17 in)
Output table dimensions	Height: 102 cm (40 in)	Height: 102 cm (40 in)
	Width: 175 cm (69 in)	Width: 262 cm (103 in)
	Depth: 89 cm (35 in)	Depth: 81 cm (32 in)
	Height (folded): 132 cm (52 in)	Height (folded): 135 cm (53 in)
	Depth (folded): 39 cm (17 in)	Depth (folded): 39 cm (17 in)
Extension tables dimensions (each table)	Height: 102 cm (40 in)	Height: 102 cm (40 in)
	Width: 175 cm (69 in)	Width: 262 cm (103 in)
	Depth: 165 (65 in)	Depth: 89 cm (35 in)
	Height (folded): 180 (71 in)	Height (folded): 135 cm (53 in)
	Depth (folded): 57 cm (23 in)	Depth (folded): 57 cm (23 in)
Weights (assembled)	Printer: 720 kg (1586 lb)	Printer: 814 kg (1905 lb)
	Input table: 32 kg (70 lb)	
	Output table: 38 kg (83 lb)	
	Extension tables (each): 59 kg (130 lb)	

Power

Table 4-5 Printer power specifications

Input voltage	200-240 VAC, single phase
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Table 4-5 Printer power specifications (continued)

Input frequency	50/60 Hz
Maximum load current	12 A
Required electrical circuit (North America/ Japan)	200–240 VAC, 20 Amps, 60 Hz, single phase, with NEMA L6-20R locking wall receptacle
	 <p>NEMA L6-20R Receptacle</p>
Required electrical circuit (Europe)	230 VAC, 16 Amps, 50 Hz, single phase, with CEE 7/4 or CEE 7/7 wall receptacle
	 <p>CEE 7/4</p> <p>CEE 7/7</p>
Required power cord	<p>The printer can use any of the following 4.5 m (14.8 ft) power cords:</p> <ul style="list-style-type: none"> • USA: HP part number 8120–6903 • Europe: HP part number 8120–6899 • Cord without connector to electric outlet (for use with customer-supplied connector): HP part number 8120–6895
Optional auxiliary power for ink system vacuum	<p>When configured as shipped, if the power cord to the printer is removed, power to the ink system vacuum is removed. If the printer standby power switch is switched off, but the power cord is not removed, power to the vacuum is preserved. The ink system vacuum maintains the negative pressure required for printing operation and prevents ink dripping from the printheads when the printer is idle.</p> <p>You can preserve power to the ink system vacuum during power outages by connecting the supplied power cord (length: 137 cm (4.5 ft)) from the auxiliary power connection (below the ink box racks) to one of the following:</p> <ul style="list-style-type: none"> • Wall outlet — 100-240 VAC, 50/60 Hz, provides temporary power to the vacuum system when it is necessary to remove power from the printer for service. • UPS — customer-supplied uninterruptable power supply, output 100-240 VAC, 50/60 Hz, minimum of 15 watts of power, provides battery backup to the vacuum system in the event of a power failure. UPS is connected to the electric wall outlet.

Environmental

Table 4-6 Printer environmental specifications

Operating conditions	Temperature: 20–30° C (68–85° F) Relative Humidity: 20–80%, non-condensing (40–60% recommended to avoid static electricity on synthetic media that occurs below 40%, and buckling on paper-based media over 60%.) Maximum operating altitude: 3000 m (10,000 ft)
Storage conditions	Temperature: -34–49° C (-30–120° F) Relative Humidity: 10–80%, non-condensing
