



Xerox® Baltoro™ HF Inkjet Press

Customer Expectations Document (CED)

Baltoro™ HF Press



Baltoro™ HF Press with optional Color Accelerator





Copyright ©2020 Xerox Corporation. All rights reserved. Xerox®, FreeFlow, Baltoro™ and any other Xerox product names set forth herein are trademarks of Xerox Corporation in the US and/or other countries.

Microsoft, Windows, and Internet Explorer are registered trademarks of Microsoft Corporation.

Includes Adobe PDF Converter SDK.

Includes Adobe PDF Print Engine.

Includes Adobe PostScript fonts.

Includes Adobe PDF Library.

Includes Adobe Japanese Fonts.

Copyright protection claimed includes all forms and matters of copyrightable material and information now allowed by statutory judicial law or hereinafter granted, including without limitation, material generated from the software programs displayed on the screen such as icons, screen displays, or looks. Product appearance build status and/or specifications are subject to change without notice.

Other company trademarks are also acknowledged.

Revisions are periodically made to this document. Changes, technical inaccuracies, and typographic errors will be corrected in subsequent editions

Contents

Introduction	1
System Configuration.....	1
Base Configuration.....	1
Optional Color Accelerator Configuration	1
Other Optional Configurations.....	3
Press Specifications.....	4
Sheet Feed Module Specifications.....	6
Xerox Production Stacker (XPS) Specifications	7
Xerox Tape Binder (XTB) Specifications	9
Additional In-line Third Party DFA Finishing/Feeding Options	11
Ink Estimation and Ink Usage.....	12
System Configuration and Installation.....	12
Customer Responsibilities.....	12
System Installation.....	14
Transitioning to Production	14
Operator Training.....	15
Production Planning, Availability, and Productivity.....	15
Availability.....	15
Customer Maintenance	16
System Maintenance	16
Productivity Considerations.....	18
Mixed Plex Productivity	18
Print Rate	19
Impact of System Updates	20
Jam Clearance - Dryer	20
Paper and Media Support.....	20
Validation/Testing of Media	20
Specifications/Concerns with Specific Papers	21
Unsupported Media.....	22
Stock Library.....	22
Use of Unqualified Media and Custom Cut Media	22

Paper Storage and Handling	22
Image Quality	22
Critical Aspects of Image Quality	23
Profiling	25
FreeFlow® Print Server (FFPS).....	26
Freeflow® Print Server Specifications	27
Web UI Browser Requirements	28
Adobe PDF Print Engine	28
Licenses	28
Supported Print File Formats	29
Running Antivirus Software	29
Security	29
Disposal of Hard Drives	30
Windows Utilities	30
Proxy Setup	30
Network Setup for CFA	30
Network Settings.....	30
FreeFlow® Print Server Local and Remote UI	30
Xerox FreeFlow® Workflow Solutions.....	30
Other Xerox and 3rd Party Solutions	31
Consumables.....	31
Safety Considerations for the Ink.....	33
Disposal Process.....	33
Customer Expectations Agreement.....	34

Introduction

The purpose of this document, in conjunction with the Xerox® Baltoro™ HF Press Product Brochure / Specifications and the Xerox® Baltoro™ HF Press Installation Planning Guide (“IPG”), is to help you understand the capabilities, limitations and requirements of the Xerox® Baltoro® HF Press (referred throughout as the “System”, “Press”, “Baltoro”, “Baltoro Press”, “Baltoro HF System” or “Baltoro System”). As indicated by the cover stamping, this document contains sensitive information that is proprietary to Xerox. We expect you as our valued customer to use all reasonable efforts to safeguard the document, to not disclose its contents to third parties, and to only circulate it within the organization on a need to know basis.

This document addresses high-level expectations. Guidelines for site planning, installation planning, product documentation and training materials are provided in the documentation that you will receive.

A Xerox representative will review this document with you. As the purpose of this document is to help you understand the capabilities, limitations and requirements of the Baltoro HF System, there will be more detail into the functionality of the Baltoro Press and obligations regarding your usage of it and maintenance thereof. In the event of any conflict between the statements made in this Customer Expectations Document (“CED”) and any terms in the sale, lease, rental and/or service agreement or Statement of Work (“SOW”) between you and Xerox (or the Xerox authorized reseller) including, but not limited to, maintenance or functionality of the Baltoro HF System, the order of precedence will be as follows: (1) the terms contained in this CED, and then (2) the terms contained in such sale, lease, rental and/or service agreement, including any Statements of Work. However, notwithstanding the foregoing, Customer’s responsibility to make any payment to any Xerox financing company under a lease or rental agreement will be absolute in accordance with its terms and not negated by anything contained in this CED.

System Configuration

The Xerox® Baltoro™ HF Press is Xerox’s newest generation production, sheet-fed inkjet press. Baltoro was designed for use in production print environments such as commercial print, service bureaus, transaction printers, direct mail printers, as well as public sector and commercial in-facility printing divisions.

Base Configuration

The base configuration of the Press includes one (1) Sheet Feed Module, one (1) Printer Module, which includes a single dryer unit, one (1) Xerox Production Stacker, and one (1) Freeflow Print Server. Note that a Baltoro System may be configured with up to four (4) Sheet Feed Modules and up to two (2) Stackers.

The base configuration supports a wide range of plain uncoated and inkjet treated papers, as well as a narrow range of coated paper types. The Tested Substrate List (“TSL”) defines the specific papers that are approved for use with Baltoro.

The Baltoro base configuration is designed to operate within a typical environmentally-controlled print environment without needing an exhaust vent.

Optional Color Accelerator Configuration

The Xerox® Color Accelerator (the “Color Accelerator”, or “Accelerator”) consists of optional hardware that enables support of a wider range of coated paper types than the Base Configuration. Color Accelerator consists of an additional (second) drying unit and a sheet cooling module to provide additional ink drying capacity. Some media types, including all gloss coated papers and any coated papers heavier than 148 gsm, can only be run on Systems configured with the Color Accelerator. The TSL specifies which coated papers are approved only for use with the Color Accelerator Configuration.

Unlike the base configuration, Baltoro with the Color Accelerator is designed to operate with two exhaust vents. When using this configuration, the customer must install heat vents that conform to the specifications outlined in the IPG.

FreeFlow Print Server

FreeFlow® Print Server (“FFPS” or “server”) is the print controller for the Baltoro HF System, rasterizing incoming files and providing several other critical functions for print processing. FreeFlow® Print Server handles a wide range of network connections and data streams.

This server also integrates with FreeFlow® Core, an optional suite of workflow applications including automated print production, JDF/JMF connectivity to external systems, and workflows for conversion, preflight, image enhancement, imposition and print job web submissions. For more information about FreeFlow® Core, see your Xerox sales representative or Xerox.com.

Print Heads

Baltoro utilizes Xerox High Fusion W-Series printheads, designed for aqueous ink. They contain 1200 nozzles per inch and can fire up to 60Khz. The System includes 3 print heads per color, 12 in total. When the machine is idle, the print heads are capped to protect them from drying out. In production mode, the print head caps are retracted, and the print heads are moved to the print position, located above the paper path. The printer is equipped with a print head maintenance system used to purge and wipe the print heads. This is required for ink jet printers to maintain jetting longevity and performance. The System is capable of both auto maintenance and user-initiated maintenance. Ink that is purged is collected by the System in a waste ink bottle.

Ink

Baltoro uses Xerox High Fusion (“HF”) Ink, specially designed, and approved for this press. This is a pigment based aqueous ink, formulated for the Xerox High Fusion W-Series printhead and the Baltoro HF System print process. The System must only be operated with the designated Xerox HF Ink for Baltoro. Any damage caused to the print heads or any other part of the press as the result of the use of a non-approved ink(s) will void Xerox’s obligation to provide maintenance services and could result in costly repair charges at customer’s expense.

Billing Meters

Billing meters are available to be viewed via the Administration window. The Baltoro Press calculates billable content based on four definitions.

- Color Impressions: Pages containing color data
- Color Large Impressions: Pages larger than 145 in² / 935.48 cm² and containing any color data
- Black Impression: Pages containing black-only (K-only) data
- Black Large Impressions: Pages larger than 145 in² / 935.48 cm² and containing black-only (K-only) data

A Color or Large Color impression is one which uses any Cyan, Magenta, and/or Yellow ink, based on the content of the image data received by the print engine.

Baltoro features a “Black Only Mode” in which the CMY heads are capped, and only black ink is used. When a black-only page is printed, the Black Impressions and Black Large Impressions Meters are incremented depending on whether the press is in Full Color Mode or Black Only Mode:

- The Black Impressions meter is incremented once for each black only impression that exits the print engine while the System is in Black Only (K-Only) Mode, and incremented twice for each black only impression made while the System is in Full Color (CMYK) Mode

- The Large Black Impressions meter is incremented once for each Large black only impression that exits the print engine while the System is in Black Only (K-Only) Mode and incremented twice for each Large black only impression made while the System is in Full Color (CMYK) Mode. Large impressions are defined above.

Billing Meters are not incremented for

- Blank Sheets.
- Waste sheets that are manually cleared from the feeders and print engine.

Additional details concerning billing meter operation are available in the IPG.

Inline Spectrophotometer (ILS)

The ILS is a user-accessible device used for automated color profiling. The ILS reads color patch data for linearization and profiling for specific papers. Sheets read by the ILS will be fed to the top tray of the stacker.

Integrated Imaging Module (IIM)

The IIM is a full width array scanner module integrated in the Baltoro paper path. The IIM is used in automatic missing jet detection, to enable adjustment of image on paper registration, and for print head registration, angle adjustments, dot placement setup, and density optimization.

Print Speed Modes

Depending on configuration, Baltoro includes print speed modes, which can be selected by the operator based on attributes of a specific job, such as paper type or ink coverage. The TSL will define if a specific paper must be run in a particular speed mode. For all speed modes, please refer to the Productivity charts later in this document for the expected print speeds for all supported sheet sizes.

- Optimize For Color Rendering (referred to in this CED as “Standard Mode” or “Optimize For Color Rendering Mode”) – This is the standard speed mode for the Base Configuration. The Press will print at the base print speed of 197 ppm A4 or 182 ppm Letter. Unless noted in the TSL, all approved uncoated and inkjet treated papers may be run in Standard Mode. Some approved coated papers may also be run in Standard Mode as defined by the TSL.
- Optimize for Special Media (referred to this CED as “Special Media Mode” or Optimize for Special Media Mode”) – This speed mode is only available with the Color Accelerator configuration. The Press will run at slower speed of 99 ppm A4 or Letter. This mode enables longer drying time and is primarily intended for heavier weight coated stock. The TSL will define specific papers that must be run in this mode.

Other Optional Configurations

Speed License

A speed license is available that will increase the duplex print speed of the press. Activating the speed license will allow the operator to select a third print speed mode:

- Optimize For Speed (referred to in this CED as “High-Speed Mode” or “Optimize For Speed Mode”). High-Speed mode is targeted for those who print a high volume of duplexed jobs that feature low area coverage (e.g. light coverage direct mail or statements). This mode only affects duplex print speed. This mode can only be used for uncoated and inkjet treated media types; Coated papers may only be run in the Standard Mode or Special Media Mode. In High-Speed Mode, the Press will run at duplex speed of up to 300 impressions per minute, depending on sheet size. Refer to the productivity chart later in this document for the expected print speed for all supported sheet sizes.

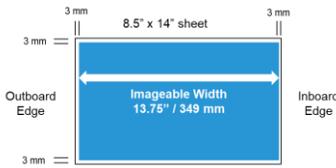
The Speed License is available for both the Base Configuration and Color Accelerator Configuration.

Optional Feeding and Finishing Devices

Several Xerox and Partner Finishing and Feeding options have been validated and are available as options for the Baltoro system. Additional devices may become available as they are developed and validated with Baltoro. Descriptions of finishing options can be found in the Finishing section of this document, and please refer to the Solutions Planning Guides (“SPGs”) for the individual device details. The SPGs can be provided by your Xerox sales representatives.

Press Specifications

Item		Comments
Product Dimensions	<p><u>Baltoro Press with Base Configuration</u> Size 22'3.5" x 5'4.5" x 6'9" (W x D x H) 6.79 m x 1.63 m x 2.06 m (W x D x H)</p> <p><u>Baltoro Press With Color Accelerator</u> Size 28' 2.5" x 5'4.5" x 6'9" (W x D x H) 8.60 m x 1.63 m x 2.06 m (W x D x H)</p>	<p>Dimensions are based on a configuration which includes: one (1) sheet feed module, one (1) printer module (PM) & one (1) production stacker (XPS), and where noted, optional Color Accelerator. Additional components will alter this size. See the IPG for details, including space required for customer and service access to the System.</p>
Weight	<p>Press, 1 Feeder, 1 Stacker: 6,769 lbs. (3,070 kg)</p> <p>Press, 1 Feeder, 1 Stacker, with Color Accelerator: 8,509 lbs. (3,859 kg)</p>	<p>Dimensions are based on a configuration which includes: one (1) sheet feed module, one (1) printer module (PM) & one (1) production stacker (XPS), and where noted, optional Color Accelerator. Additional components will alter this. See the IPG for details.</p>
Power Req. 60 Hz.	<p><u>Base Configuration:</u> IOM/Dryer/Output Module/HTM: 120/208 VAC (+6%, -10%) - Typical for 60Hz US, 3-phase wye, with Neutral and Protective Earth, service >63A per Phase</p> <p><u>With Color Accelerator:</u> 120/208 VAC (+6%, -10%) - Typical for 60Hz US, 3-phase wye, with Neutral and Protective Earth, service >63A per Phase</p> <p>Feeder, Stacker, PSIP, FFPS: 120 (108 – 127) VAC, 20 A</p>	<p>Dedicated per receptacle.</p> <p>See IPG for additional details.</p>
Power Req. 50 Hz.	<p><u>Base Configuration:</u> IOM: 230/400 (+6%, -10%) VAC, 3-phase wye, w/Neutral and Protective Earth – Typical for 50/60 Hz XE installations, service >32A per Phase</p> <p><u>With Color Accelerator:</u> 230/400 (+6%, -10%) VAC, 3-phase wye, w/Neutral and Protective Earth – Typical for 50/60 Hz XE installations, service >32A per Phase</p> <p>Feeder, Stacker, PSIP, FFPS: 230 (198 – 254) VAC, 10 A minimum</p>	<p>Dedicated per receptacle.</p> <p>See IPG for additional details</p>
Digital Front End (“DFE”)	<p>FreeFlow Print Server with:</p> <ul style="list-style-type: none"> • 64 GB (8x8 GB 2133MHz DDR4 RDIMMS) • 5x1 TB Hard drive 	

Item		Comments
Input Media Capacity	<p>10 in. (254 mm) of stock per tray – each containing approximately 2,500 sheets</p> <p>Two trays per Sheet Feed Module for a total of approximately 5,000 sheets.</p> <p><u>Upper Tray</u> Max. sheet size: 14.33” W x 20.5” L (364 mm W x 521 mm L) Min. sheet size: 10” W x 8.27” L (210 mm W x 254 mm L) **</p> <p><u>Lower Tray</u> Maximum sheet size: 14.33” W x 20.5” L (364 mm x 521 mm) Minimum sheet size: 7”W x 10” L (178 mm x 254 mm)</p> <p>Sheet dimensions Width (W) x Length (L)</p>	<p>Base configuration includes one Feeder Module. Additional Feeder Modules are optional, up to four in total.</p> <p>** Upper Tray minimum Width is 10” or 254 mm. Short Edge Feed for A4 or Letter is not supported from Upper Tray.</p>
Input Media Weight Range	<p>Refer to TSL for all supported media. Nominal specs:</p> <p><u>Uncoated and Inkjet Treated:</u> 60 gsm to 270 gsm (16 lb. Bond to 100 lb. Cover) 271 gsm to 300 gsm, when approved on the TSL</p> <p><u>Inkjet Coated and Offset Coated:</u> Base Configuration: 90 gsm to 148 gsm Color Accelerator Configuration: 90 gsm to 300 gsm</p>	<p>For Offset Coated media, the TSL will also define requirements for Color Accelerator and print speed mode.</p>
Image Area	<p>Maximum image area: 13.75” X 20.25” 349 mm x 514 mm</p> <p>Note: When printing 14” / 355 mm wide stocks “Long Edge Feed,” there is a 3 mm (0.12 in.) deletion on each side:</p>  <p>The diagram shows a blue rectangle representing the imageable area. Above the rectangle, it says '8.5" x 14" sheet'. Below the rectangle, it says 'Imageable Width 13.75" / 349 mm'. On the left side, there are two vertical lines with '3 mm' written next to them, labeled 'Outboard Edge'. On the right side, there are two vertical lines with '3 mm' written next to them, labeled 'Inboard Edge'.</p>	<p>All sheets will have a default 3 mm (0.12 in.) edge deletion regardless of sheet size.</p> <p>Image Quality artifacts (such as blurring of images, lines, or text) may be more noticeable within 10 mm of any edge.</p>
Resolution	<p>1200 x 1200 dots per inch (dpi), 1-bit</p>	
Output Capacity	<p><u>Single XPS module:</u> 2,850 x 2, for a total of 5,700 sheets (90 gsm / 4.0 caliper).</p> <p><u>Dual XPS module:</u> 2,850 x 4, for a total of 10,400 sheets (90 gsm / 4.0 caliper)</p> <p>Top Tray: 250 sheets (20 lb. bond / 75 gsm)</p>	<p>Base configuration includes one (1) stacker; second stacker is optional.</p> <p>Refer to Finishing section for details on stacker specifications and features.</p>
Productivity	<p>Simplex: Up to 197 ppm A4, 182 ppm Letter</p>	<p>Refer to productivity charts in this document for print speeds</p>

Item		Comments
	Duplex (with optional Speed License): Up to 300 Impressions per minute (IPM), where “Impression” refers to a US Letter or A4 equivalent. Duplex (without optional Speed License): Up to 197 IPM A4, 182 IPM US Letter	for various sheet sizes in each speed mode. Refer to the TSL for print speed limitations for approved coated papers.
Job Integrity / Recovery	The System will recover after a jam to the last successfully delivered sheet. For potential duplicate pages, warning messages are posted, and the operator may cancel or proceed.	Some job recovery procedures require a System shutdown. In limited circumstances, a print job may have to be re-submitted.
Cycle Up Time	Cycle Up time is the time from pressing “Start” for a job to when sheets begin to feed. Normal cycle-up time is approximately 30-60 seconds	
Recommended Ave. Monthly Print Volume	750K – 3.0M Impressions	Based on Letter/A4 equivalent impressions per month.
Duty Cycle	6M Impressions	Based on Letter/A4 equivalent impressions per month. Duty cycle represents the maximum number of prints you can expect to produce, e.g. during a peak period.

Sheet Feed Module Specifications

Characteristic	Description	Comment
Sheet Feed module	One Feeder module without bypass standard; up to three additional Feeder modules with bypass optional, in which case the Feeder without bypass is first (the Feeder that is left most).	Trays do not feed to empty. When a feeder empty message is displayed, there could be as much as 30 mm (one inch) of stock remaining in the feeder tray. This is to maintain the best possible reliability in the feeder mechanisms.
Paper drawers	Two paper trays per module; 10” of media per tray or 2,500 sheets (4.0 caliper, 90 gsm).	
Supported stocks	Supported media include uncoated bond stocks and ink jet treated stocks from 60 to 270 gsm, and Coated stocks from 90 to 300 gsm. Refer to the Tested Substrate List for specific coated stocks that are supported with and without Color Accelerator.	If running preprinted sheets with varying image content or rainbow colors, the feeder multi-feed detector may sense a difference in opacity from sheet to sheet. In this case, multi-feed detection can be disabled.
Tray switching	Auto tray switching & Load While Run capability is supported across all paper drawers. The System automatic switches trays with no loss in productivity	

Characteristic	Description	Comment
Paper Drawer Specifications	<p>Load while run operation (for paper sizes supported by more than one feeder tray).</p> <p>Each tray handles the full range of stock supported by the System.</p> <p><u>Upper Tray</u> Maximum sheet size: 14.33" W x 20.5" L* 364 mm W x 521 mm L Minimum sheet size: 10" W x 8.27" L ** 254 mm x 210 mm</p> <p><u>Lower Tray</u> Maximum sheet size: 14.33" W x 20.5" L* 364 mm x 521 mm Minimum sheet size: 7" W x 10" L 178 mm W x 254 mm L</p> <p>Sheet dimensions Width (W) x Length (L)</p>	<p>Standard sizes and custom sizes are supported.</p> <p>Specialty media (e.g. envelopes, windowed stocks, reinforced, transparencies, Mylar, toner-based pre-printed shells, adhesives backed labels) are currently not supported from either tray.</p> <p>Paper based tabs and drilled paper are supported per TSL.</p> <p>* The System only supports up to 20.5" paper and will not feed anything larger than 20.5".</p> <p>** Upper Tray minimum Width is 10" or 254 mm. Short Edge Feed for A4 or Letter is not supported from Upper Tray.</p>

Xerox Production Stacker (XPS) Specifications

The Xerox Production Stacker ("XPS") is a stacking device that also enables other inline finishing by providing document transport capability and full DFA support to DFA compliant finishing devices.

XPS Features

- Dual stack capability (up to two stacks per stacker)
- Unload while run with a single stacker
- Unload while run / unload on demand functionality
- Adjustable unload height from 8" to 24"
- Set and Job offset
- Subset offset
- Jam offsetting (default is set to off)
- Sheet level jam recovery
- Substrates that tend to exhibit curl when being fed through the Baltoro® System can cause functionality problems in the finishing devices
- Built-in rotator to maintain productivity when finishing smaller size applications via Document Finishing Architecture ("DFA") device finishing devices
- Center or Edge(front) registered output delivery

XPS Unloading

When a full stack condition occurs, the printer pauses (skips pitches) and the stack will be automatically ejected (alternatively, the operator can set it to eject manually) to the front of the XPS and raised to the programmed height. Once the stack is ejected, the stacker will resume stacking operations on a second internal stack, even before the previous stack is unloaded. Thus, there can be two completed stacks of 2,850 sheets before the XPS needs unloading. The ejection process is a pseudo "unload while run" feature, because it does not require the printer to cycle down, but there is a pause while the stack is ejecting. This pause varies based on machine

configuration, how full the stacker is when the unload takes place, and whether the job is printed simplex or duplex. If the stacker is nearly empty (and the unload button is pressed), the delay will be approximately 36 seconds. If the stacker is full (and the unload button is pressed), the delay will be approximately 48 seconds. If the job is duplex, customer will need to add 6.5 seconds to the above times. In addition, sheets coming from a second feeder or sheets fed through a second dryer and/or cooler will add more time. The user can select the “Do Not Auto Eject” setting to prevent automatic ejection under a full stack condition. In this case, the user can push the “Unload” button to eject the stack.

XPS unload operations can be configured to occur automatically at a set stack limit, at job, or partition boundaries. Unload operations can also be initiated manually via the Stacker Unload button or the GUI (‘unload on demand’). A stacker's stack limit can be set to any value between 200 and 2,850.

The stacker can also be programmed to unload at heights between 8” to 24”. When the stack is ejected to the front of the stacker, it will be raised or lowered to the programmed height. This will allow the user to unload the stack at near waist height or leave it at the lower height when using the optional cart to unload the stack.

The XPS “unload at waist height” capability is limited to lifting weights of up to 80 lbs. (36 kg). This weight limitation has no impact on stack capacity for media of Letter/A4 through SRA3 or 12” X 18” sizes. For media of larger than SRA3 / 12” x 18” sizes (80 gsm or more), the stack capacity will be reduced to 60 lbs. (27.2 kg) to ensure that the stack is able to be raised to waist height. If full stack capacity is preferred over lifting to waist height, the “Ignore Stack Weight Unload Limit” feature can be selected. If this feature is selected, the stacker will stack to full capacity but, if the stack is greater than 80 lbs., the stack platform will eject but not raise the stack.

For heavy weight 2-sided stock, there may be stack disturbance in the top few sheets - the top few sheets may “slide” around as the stack is ejecting. Depending on the specific stock and the air flow conditions, the top sheets may slide off the stack during the ejection. The “Do Not Auto Eject” feature can be used to minimize the stack’s top sheets from sliding as the platform ejects. It is recommended to wait about 30 seconds after the “In Use” indicator turns off, prior to pressing the “Unload” button to eject the stack.

Dual XPS

Continuous operation with “unload while run” is fully supported with a dual stacker installation. When the first stack on a stacker is “full” and ejecting, or if both stacks on a stacker are full, the System will automatically switch to another available XPS stacker without skipping any pitches (which is a true “unload while run” scenario). Unloads can be configured flexibly, as above. Also, each stacker’s stack limit can be configured independently, to any value between 200 and 2,850. If desired, operators can also program jobs to specific stacker destinations. A dual stacker configuration allows for a total unattended stacking capability of 10,400 pages.

Production Media Cart

The optional Production Media Cart (the “Cart”) interfaces with the Xerox Production Stacker to assist with transporting printed media from the XPS to consolidation pallets, or near-line/off-line finishing equipment. The Cart uses a motorized lift to set the unloading height for transfer of the paper stack from the Cart. Installation of the kit necessary to enable this Cart reduces the stack capacity of the XPS to 5,200 sheets (2 stacks of 2,600 sheets).

XPS Media Specifications

Attribute	Specification	
Stock Weight Range	60 to 300 gsm (approx. 40 lb. text to 110 lb. cover), per the approved TSL	
Stock Size Range	Stacker	7.0" x 10.0" LEF and 8.27" x 11.69" SEF to 14.3" x 19.7" (178 mm x 254 mm and 210 mm x 297 mm to 364 mm x 500 mm)
	Main Tray	
	Top Tray	7.0" x 10.0" LEF and 8.27" x 11.69" SEF to 14.3" x 20.5" (178 mm x 254 mm and 210 mm x 297 mm to 364 mm x 521 mm)
	Bypass with Rotation (input)	Edge output: 7.0" x 10.0" LEF and 8.27" x 11.69" SEF to 14.3" x 14.3" (178 mm x 254 mm and 210 mm x 297 mm to 364 mm x 364 mm) Center output: 7.0" x 10.0" LEF and 8.27" x 11.69" SEF to 14.3" x 14.3" (178 mm x 254 mm and 210 mm x 297 mm to 364 mm x 364 mm)

The Stacker can accept up to 2,850 sheets of *Bold 24#* (90 gsm) 4 caliper paper or Xerox *Vitality 20 lb.* (75 gsm) 4.1 caliper paper. If you are running sheets that are thicker than 4.1 caliper, then you may receive an XPS-12-2070 "Stacker Full Switch Fault" when the stacker is going full. An example of this is Xerox *Vitality 24 lb.* (90 gsm) 4.5 caliper paper. To avoid getting these faults, please set your Stacker Limit to 2600 sheets for 4.5 caliper paper. If you are running thicker paper than 4.5 caliper, then you may need to lower the Stacker Limit further.

Xerox Tape Binder (XTB) Specifications

The Xerox Tape Binder ("XTB") creates bound books inline using thermal adhesive tape binding strips to bind sheets (without the need for stapling). It can bind 8.5" x 11" or A4 documents (configurable by service) with up to 125 sheets. The tape binding strips are available in Black, White and Dark Blue.

The Xerox Tape Binder has bypass capability to allow additional in-line finishing DFA devices to be connected downstream. An XPS is required upstream for in-line connectivity to the printer.

Up to two Xerox Tape Binders can be configured on one system, in a so called 'Dual XTB' configuration. Please refer to the Xerox Tape Binder Solutions Planning Guide for further site planning information, system dependencies, limitations, valid configurations, supplies (strips) information and device specifications.

Dimensions	Xerox Tape Binder
Width X Depth X Height	34.1" x 28" x 42.4" (870mm x 708mm x 1080mm)
Input Height	34" (860mm)
Bypass Output Height	34" (860mm)
Weight	352 lbs. (160 kg)
Clearance: Operator	Minimum 30" (763mm) in front of module

Dimensions	Xerox Tape Binder
Clearance: Service	Minimum 46.8" (1189mm) in front, and 30" (763mm) behind

Electrical & Environmental	Xerox Tape Binder	
	Minimum	Maximum
Temperature Range	59° F (15° C)	86° F (30° C)
Humidity Range	20% RH	80% RH
Altitude	N/A	N/A
Sound Emission		Bind Mode: 75 dB(A) impulse Bypass Mode: 60 dB(A) impulse
Power	100 - 120 VAC, 50/60 Hz, 12 A 220 - 240 VAC, 50/60 Hz, 6 A	

Media Latitude	Xerox Tape Binder
Stock Weight Range	<u>Base Stock/Inserts</u> : 60 to 220 gsm uncoated <u>Covers</u> : 60 to 250 gsm uncoated, 90 to 220 gsm coated. Note that coated cover stocks are limited to those which are validated and documented in the Baltoro Tested Substrate List
Stock Sizes	8.5" x 11.0" (216mm x 279mm); A4 (210mm x 297mm) Tabs up to 0.5" (12.5 mm) wide, Covers (9 x 11", 223 x 297mm)
Specialty Media	N/A
Sheets / Books	10 – 125 sheets (75 gsm or equivalent thickness)
Tray Capacity	Up to 1500 sheets (e.g. 30 books / 50 sheets per book for 75gsm / 20lb bond) Maximum 30 books Tray can be unloaded while machine is running.

Notes:

- To maximize binding quality, limit stocks >140 gsm to 10% or less of the sheet count in a book. Also, avoid use of 60 gsm body stock with > 90 gsm inserts.
- Avoid adjacent Body Stock/Inserts of > 120 gsm.
- Transparency, coated stocks or never-tear stocks can ONLY be used for covers (with a Third-Party inserter C.P. Bourg Sheet Feeder (BSFx))
- The maximum book thickness can be 0.5" (13mm) – when using heavier than 75 gsm substrates, the number of sheets in the book will need to be reduced to achieve book thickness of 13 mm or less.
- Performance (binding quality, jams) can also be degraded by the following:
 - Curled stock
 - The book mass greater than 580 grams
 - Drilled stock with reinforced edges
- The Xerox Tape Binder is a Document Finishing Architecture (DFA) device – please refer to the Solutions Planning Guide for other details related to the operation of this device. Of note:
 - Job recovery at the book level (and not at the sheet level). In the event of a fault shutdown in the Binder, the current book being bound will be completed (provided that is not where the fault occurred) and any partially collected sheets for the next book will have to be discarded. The job will resume at the beginning of the next book to be bound.
 - Should a jam or shutdown occur in the Binder, the Xerox Baltoro™ HF Inkjet Press User Interface ("UI") displays a general DFA device fault message and the instructions for clearing the jam are provided on the Binder UI.

System Productivity: with Xerox Tape Binder

Baltoro XTB Books per Hour (Optimize for Print Speed)					
Letter / A4 Duplex sheets	20	30	50	75	100
Baltoro Books Per Hour	147	129	145	110	82
Baltoro Books per Hour with "Smooth" selection					
Letter / A4 Duplex sheets	20	30	50	75	100
Baltoro Books Per Hour	78	78	78	91	76

Additional In-line Third Party DFA Finishing/Feeding Options

As of the date of this publication, the In-line DFA Finishing Options described below are also available with the Xerox® Baltoro™ HF Inkjet Press (an up to date list is available at <https://www.xerox.com>). An XPS is required upstream for in-line connectivity to the printer for all the devices set forth below. Please refer to the SPG for the individual device details. The SPGs can be provided by your Xerox sales reps.

Binding

C.P. Bourg BB3202 Perfect Binder: Compiles book blocks and binds them; book blocks can consist of individual cut sheets or single fold signatures. Binds from 1 to 60 mm (0.04" to 2.36"). EVA or PUR adhesive options.

Booklet Making

C.P. Bourg Document Finisher (BDFEx/BDFNx): Automated saddle stitched signature booklet making (22 sheet capacity), with optional covers feeder, SquareEdge, and sheet rotator modules. Optional corner edge stapling (50 sheet capacity).

C.P. Bourg Booklet Maker Enhanced (BMEx): Automated saddle stitched signature, extra-large format, booklet making (30 sheet capacity); available options include sheet rotator, bleed crease and SquareEdge Modules. Optional corner edge stapling (50 sheet capacity).

Watkiss PowerSquare™ 224: Produces stitched SquareBack™ books (52 sheet capacity). Available in off-line, nearline and in-line configurations.

Roll Feeding

Tecnau SheetFeeder BV™ NV-R: Enables delivery of cut sheets from a roll of paper; includes unwinder, cutter, sheet transport, roll cart (optional), running perforator (optional) and print registration (optional to enable feeding pre-printed forms on rolls). Available in a front, rear or straight-in unwinder feed configuration.

Perforating

Tecnau TC 1530 CX Dynamic Perforator: Dynamic perforations; up to two horizontal perf cylinders and four vertical perf wheels. Optional 2D bar code reader.

Punching

GBC FusionPunch™ II: Provides punching, to enable lay flat binding. Includes offset stacker; available optional bypass stacker.

Sheet Feeding/Inserting

Xerox Dual-Mode Sheet Feeder (BSFEx): Transports media from up to two stack locations (or via a bypass transport) to a downstream finishing device, allowing multiple printers to share one finishing device.

Stacking

Multigraf PST-52 Stacker: This stacker is only used with the Tecna TC 1530 CX Dynamic Perforator, and not in other configurations. Large format stacker (up to 14.3" x 20.5" for Xerox® Baltoro™ HF Inkjet Press) with trolley; up to 4,700 sheet capacity.

Ink Estimation and Ink Usage

System ink usage is composed of two components: the ink used to print customer jobs, or job ink, and the ink used to maintain machine reliability and image quality, or maintenance ink. The amount of job ink used is dependent upon the job's settings (DFE settings, profile used, etc.) and the job's area coverage. The amount of maintenance ink usage is largely a function of how much the System is used for printing (shifts per day [1 x 5, 3 x 7, etc.] and print volume). To maintain the System's reliability and image quality, the Baltoro Press regularly performs print head purges, runtime missing jet and registration correction, and warm up sheets. Customers can also manually initiate purges based upon Image Quality requirements. Some routines can be set by the customer, and some are performed automatically. Changing the defaults on the customer-selectable settings may trade off decreased ink usage for reduced image quality and system reliability. The total amount of ink used can be displayed by the Press when the operator manually starts and stops an ink usage monitor routine while running production.

Xerox also offers a standalone customer tool to estimate the ink used for any given customer job, off press and before the job is printed, called the Xerox ink measurement and proofing tool (the "IMAP tool"). This cloud-based tool is available to all Baltoro customers. Prior to machine purchase, your Xerox salesperson or analyst can assist in estimating ink usage for a given print job. Access to the IMAP tool is provided through a link in the "Welcome Letter" contained within the software kit delivered to you as part of the Baltoro installation process. With this IMAP tool, you may estimate the job ink for any job before committing it to the Press.

IMAP tool note: You shall be solely responsible for any and all data, data files, documents, graphics, messages, photographs, images, text, and/or other information or materials ("Content") that you submit to or generate in connection with your use of the tool and software. You authorize Xerox to use, process and transmit Content in the manner contemplated by the documentation for the tool and software. By using the tool and software you acknowledge and agree that Xerox is processing such Content as you direct. You are responsible and remain solely liable for the Content and compliance with all applicable laws rules and government regulations applying to the transmission thereof, including, but not limited to, those regarding data privacy and export control.

System Configuration and Installation

This section should be used in conjunction with the Xerox® Baltoro™ HF Production System Installation Planning Guide (IPG) and the supported in-line DFA Finishing Device Solution Planning Guides (SPGs), which contain detailed specifications for size, weight, electric, and environmental conditions. Only the most important requirements are stated here.

Customer Responsibilities

Customer must work with the Xerox representative to complete certain items listed below before the System can be delivered. These items will be assessed in the final site check. Refer to the Baltoro HF System IPG for complete details.

The following must be completed before the System can be delivered and will be assessed in the final site check:

Item	Baltoro HF System
Identify placement of the System.	Room meets service and operator space clearances. Allow for extensions, such as in-line finishing, work tables, storage cabinet, etc.
Ensure the Press can be delivered to the site.	Delivery path clear and dimensionally correct.
Supply the appropriate electrical connections.	Dedicated power required.
Certify that the floor from the loading dock to the installation site, and the floor at the installation site will support the machine and emit the allowable vibration loads.	For such verification and certification, Xerox strongly recommends customer consult with a structural engineer.
Meet room Environmental Specifications for temperature and relative humidity year-round (see Installation Planning Guide). Operating range: 35-55% RH and 68°-77° F (20°-25°C).	This is essential to the System’s ability to perform as expected; Xerox will not be able to resolve performance problems encountered when the area is not maintained within this operating range. Third party finishing devices may have more stringent specifications – please check the appropriate Solutions Planning Guide
Meet requirements for ventilation of the Baltoro System, if applicable	For the Baltoro base configuration (single dryer), an exhaust vent kit is not required. However, Xerox offers an optional ventilation kit. If external venting options are explored, then a qualified professional should be consulted to determine the interaction of the factors outlined above and make the appropriate recommendations for machine operating environment. If external venting is utilized, customer is responsible for compliance with any applicable air emission laws, rules, and regulations. For configurations that include Color Accelerator, the Baltoro System is designed to operate with two exhaust vents. When in operation, the Baltoro System with Color Accelerator exhausts 55,900 BTU/hr., at up to 3050 CFM. Venting with this configuration System should remove approximately 11.1 kw (38,000 Btu/hr.) from the total heat output of the Press. The customer must install heat vents that conform to the specifications outlined in the IPG.

Restrict accessibility to children	The Baltoro system is a commercial printing system and is expected to be installed in locations where only adults are normally present. This equipment is not suitable for use in locations where children are likely to be present.
Order Initial Paper Supplies	<p>You are responsible for supplying 10,000 sheets of media required to complete Press setup, training, etc. This media must be from the approved TSL.</p> <p>You must also order sufficient quantity of media to produce your agreed Golden Job(s) at installation. This media must be from the approved TSL.</p> <p>This media mentioned above are in addition to the initial quantities of TSL-approved media you require for your initial normal production printing business needs.</p>

System Installation

System installation for the Baltoro system will take up to ten days for installation of a base configuration or configuration with the Color Accelerator. Systems that include third party finishing options will require additional time to complete installation. If the Color Accelerator is being added to an existing Press, installation of the Color Accelerator upgrade will take 1-2 days, depending on age of the System being upgraded.

Ensure the necessary paper quantity and consumables for production are ordered. After install, customer is expected to provide media that a Xerox service representative can use for setting up the machine prior to operator training. You will need 10,000 sheets of various sizes for the first two weeks, along with ink and flushing fluid during the two-week monitoring period. This media must be from the approved Tested Substrate List. Specific sheet sizes for your installation will be defined and agreed between you and your Xerox analyst.

Transitioning to Production

Upon completion of the System installation, customers shall take the actions set forth below. Failure to abide by these requirements could result in service activity billable to you by Xerox outside of your Full Service Maintenance Agreement (“FSMA” or “maintenance agreement”) at current Time & Material rates to repair damage and to replace any parts:

- Become familiar with Xerox support services available as described in Xerox Operator Training and according to your Xerox FSMA.
- Perform on-going operator maintenance, including routine cleaning as specified in Xerox Operator Training.
- Allow Xerox access to the System for on-going maintenance.
- Maintain environmental conditions to the product specifications.

In addition, Xerox expects customers to take the following actions in order to facilitate the ramp to production print volume:

- Establish procedures for ordering supplies according to your production requirements.
- Maintain an appropriate level of inventory (safety stock) of paper, inks and other consumables.

Operator Training

To maximize the full productive capacity of the Baltoro HF System, you must have properly skilled, dedicated operators. Official Xerox operator training is mandatory, and we require that only operators trained by Xerox run the System.

Training will take place on-site and will last approximately five days. If applicable, training for 3rd party finishing devices is provided by the finishing vendor and is provided in addition to the Baltoro HF System training.

Following completion of the Operator Training curriculum, coaching for trained operators will take place on-site and will last approximately five days. The coaching process is intended to reinforce training concepts as they are put into action in production, and to help with job onboarding and the ramp-up to production.

If the Color Accelerator is being added to an existing System, a one-day training curriculum is required. This session will train operator(s) on the operation and maintenance tasks for the Color Accelerator.

Production Planning, Availability, and Productivity

The Baltoro HF System is designed for high productivity and to produce high quality output however, as with any printing process, you should not estimate production based solely on the raw speed of the press. The purpose of this Section is to establish expectations for the production capacity you can achieve with your System.

The Baltoro System provides many system maintenance procedures that are carried out automatically by the Press. Other maintenance and cleaning procedures must be operator initiated, and these tasks are identified in operator documentation and taught during operator training. Following the prescribed operator maintenance and cleaning procedures and completing error recovery procedures as defined in operator training are essential to achieving high productivity and quality. However, like all printing technologies, service calls will occasionally be required to resolve certain problems.

Availability

Availability refers to any time the Baltoro System is available to you and able to make prints, i.e. not being serviced by a Xerox service representative and not awaiting unscheduled maintenance to be completed during your contracted service hours. Down for service is defined as “unable to make prints,” and includes response time and machine repair time. Down for service time begins when a service request call is placed to Xerox and ends when the System is returned to you to resume production. The coverage hours of your service contract apply to all scheduled and unscheduled service activities performed by Xerox.

Availability includes the time spent producing prints as well as all routine tasks that are required to maintain the press and perform normal management of your jobs. Examples of routine tasks that are included within Availability include, but are not limited to, maintenance and cleaning procedures performed by your trained operator, Xerox-initiated preventative maintenance, startup and shutdown procedures, consumables and media loading and unloading, job management, and recovery from jams or other System faults that are resolvable by the user. Note that compliance with required maintenance procedures by your operator will result in better press productivity and quality and will reduce the need for service calls and downtime.

Pre- & Post Processing equipment may also affect availability. While not part of the Baltoro System availability described above, the servicing and maintenance of this equipment must be factored in when planning production runs.

Individual machines will vary based on factors including, but not limited to, job types, workflows, media, ink coverage, run lengths of jobs, operator skills, finishing, environmental factors and compliance with maintenance and cleaning procedures.

Average Monthly Volume and Maximum Duty Cycle

Baltoro's recommended average monthly volume is 750K – 3.0M impressions, where "impression" refers to an A4 or US Letter equivalent.

Maximum recommended monthly duty cycle for Baltoro is 6M impressions. Duty cycle represents the maximum number of impressions you can expect the Press to produce to support short bursts of work or a peak period. It is not a representation of the volume that can be produced on an extended basis.

Customer Maintenance

Your Xerox-trained Operator will perform simple preventive maintenance on the Press including the following. Refer to the "Maintenance" section of the document, "Xerox® Baltoro™ HF Inkjet Press Customer Documentation" for the full list of maintenance tasks.

1. Clean the Sheet Feed Module multi-sheet sensor
2. Clean the Registration Transport platen glass and reflector
3. Clean the Marker Module Transport belt
4. Replace the Marker Module Transport belt when needed
5. Clean the decurler assemblies

Recommended Daily operator maintenance actions:

1. Run the "End of Shift Print Head Maintenance" routine.
2. Clean the marker module transport belt at end of shift.

Operator may purge individual heads if missing jets are visible during a run with runtime correction enabled.

Basic Operator duties also include replacing the following consumables and making the sure the Press is supplied with the following:

1. Inks- Black, Cyan, Yellow and Magenta
2. Waste Ink Bottle
3. Aqueous Wiper Fluid
4. Paper

Customer will be responsible for disposing of the waste ink and wiper fluid according to the local laws. The spare parts and materials to perform operator maintenance activities are included as part of your FSMA and must be obtained from Xerox. Failure to perform operator maintenance by Xerox trained operators with Xerox approved materials and as per trained operator procedures may cause billable Xerox service activity and repair of damage that is not covered by your FSMA.

System Maintenance

Print Heads: Print heads are covered by your maintenance agreement, if applicable, subject to specific terms detailed in your Xerox maintenance agreement, in addition to the conditions below:

- Preventive maintenance has been properly executed.
- Inks, consumables, and spare parts are qualified and supplied by Xerox.

Your Xerox service representative will be able to determine when it is necessary to replace a print head. Replacement of the print head will not be covered within the maintenance agreement if the terms above, or in your Xerox maintenance agreement have been violated and/or if void conditions described in the maintenance agreement are applicable.

The System will automatically cap print heads at cycle down.

If a power outage occurs and print heads will be uncapped for more than two hours, Xerox service must be contacted to manually cap print heads.

To maintain optimal performance, the System will go through automatic ink purges depending on idle time.

- At cycle up of the press, a purge will take place for magenta if the System has been idle (no printing or purging) for more than one hour. A purge will take place for cyan, yellow, and black if the System has been idle for more than 90 minutes.
- At cycle up of the press, a double purge will take place if the System has been idle (no printing or purging) for more than eight hours
- During normal operations, printing operations will pause, and a purge will take place for magenta if it has been more than two hours since the last purge, and a purge will take place for cyan, yellow, and black if it has been more than three hours since the last purge.

In addition, the IntelliPurge feature is intended to reduce Image Quality (IQ) artifacts, such as increased graininess or reduced edge sharpness, which may become noticeable near the end of the windows between automatic purges. IntelliPurge will perform a micropurge after one hour of print time. If IQ artifacts are objectionable, the time between micropurges can be reduced by your Xerox service representative. Reducing the time between micropurges may slightly reduce your overall print productivity due to the additional purge cycles but will improve the IQ artifacts.

Note: the purge schedule is subject to change in future software release without notice

Background Jetting: When printing jobs, the print heads will automatically pre-fire electronic impulses to those jets that will be in-use for the job. In addition, the print heads will continuously fire background pixels throughout the run to keep all jets fresh. These pixels are required to prevent clogging and are unperceivable to the naked eye at normal viewing distance. They will have a minimal effect on overall image quality.

Automated Registration and Missing Jet Correction: The Baltoro System is equipped with an integrated imaging module that scans the full media width at printer rated speed. The imaging module runs a routine that uses the captured image to adjust print head alignment and correct missing jets. The routine can be invoked by the operator, or it can be set up to run during a production run automatically. The routine is recommended to be run at the start of each shift and after each manual purge. After scanning, the Image Quality control target will be sent to the top tray where it will be separate from customer output. The diagnostic target will not be counted on the billing meters and the amount of ink used in all prevention cases will be minimal. It is also advised that operators inspect output on regularly scheduled basis (e.g., every 1,000 sheets) using the sample print feature located in the FreeFlow Print Server interface. It is expected that some missing jets may be present at startup and will accumulate in between correction intervals (when the System checks for missing jets). For those jobs with high image quality requirements, it is recommended to lower the interval between System checks.

Productivity Considerations

Production Inkjet presses typically have a ramp to mature production capacity, driven by job onboarding, newness and complexity of the System, operator experience/maturity, and other factors. To ensure you can meet your commitments to your end-user customers, it is advisable to use cautious planning assumptions, particularly in the early months after install.

Over time, as you become more experienced at operation, press productivity should increase. Print volume that you can achieve in a given period will be driven by many variables including pre-press workflow efficiency, job types, client expectations, use of qualified media, daily volume, number of jobs, job mix, area coverage, adherence to environmental specifications, operator expertise, and compliance with maintenance procedures.

Job content or size can affect the achieved print rate on a given job.

For maximum productivity, keeping the job queue full eliminates between-job delays.

Periodically, your Baltoro HF System will require service to be carried out by the Xerox service representative, making the Press unavailable for production. In addition, the Xerox service representative will carry out routine preventive maintenance that is required by your System. The Baltoro HF System also has specific maintenance tasks that are the responsibility of your operator.

For jobs with critical print windows, you should make allowance for service calls in case they are needed. All extended service calls are escalated to the Xerox Command Center for assisted resolution.

The operator is able to load paper and ink, as well as unload the waste bottle, while the Baltoro Press is running. In addition, the stacker supports unloading while running to maximize productivity.

It is important that the factors impacting productivity are understood and that you plan for them. Your local Xerox service team will work to set up a maintenance schedule to best fit with your production windows for maximum productivity.

Mixed Plex Productivity

All stocks and specialty media on the TSL are imaged at rated speed regardless of weight or type. The section entitled "Print Rate" below shows the print rates supported by the Press for some standard sizes. Sizes in-between will default to the next slower rate.

Jobs that feature mixed plex (i.e., single sided mixed in production run with double-sided pages) will result in a reduction of print speed. Actual performance will vary based on the attributes of each specific job. In addition, jobs run 1 to N and N to 1 with simplex sheets that are forced to print duplex all result in very similar production efficiencies. Inserting blank pages where required to force the press to full duplex mode will allow normal duplex productivity to be achieved. Blank pages (pages containing no cyan, yellow, magenta, or black data) do not result in billing meters being incremented.

As an alternative to adding blank pages to the job, the Baltoro System can be put into a mode where all sheets are forced through the duplex path, enabling duplex productivity to be achieved. This mode needs to be disabled when printing simplex jobs to achieve normal simplex productivity. This forced-duplex mode cannot be used if tab stock is selected as a media type within a job. Tabs may only be run through the simplex path, so a job with tab stock must be run as mixed plex or simplex.

Print Rate

Baltoro print speeds for various sheet sizes and speed modes are shown in the tables below. There are separate tables for the Base and Color Accelerator configurations.

Notes and definitions:

- Impression – 8.5 x 11” or A4 equivalent. Please refer to “System Configuration - Billing Meters” section for criteria for the Large Impressions meters.
- IPM – Impressions Per Minute.
- Page – a physical sheet of media
- PPM – Pages Per Minute
- Standard Mode (Optimize For Color Rendering) – Baltoro System base print speed
- High-Speed Mode (Optimize For Speed) – Baltoro System print speed with speed license activated; High-Speed Mode utilizes only small and medium drop size modes and only applies to Uncoated and Inkjet Treated media types.
- Specialty Mode (Optimize for Specialty Media) – Print speed for selected Coated media as defined by TSL. Available in Color Accelerator configuration only.
- Note: Any approved Offset Coated and Inkjet Coated media must be run at Standard Speed Mode or Specialty Mode. High-Speed Mode may not be used and does not apply for these coated media types.

Baltoro Productivity Base Config.	Standard Papers						Standard Mode		Standard Mode		High Speed Mode		High Speed Mode		
	Paper Dimensions Along Process Direction	Paper Name	LFF	SEF	Inches	mm	Notes	IPM		PPM		IPM		PPM	
								Simplex	Duplex	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex
7.00" -- 8.27" 178 mm -- 210 mm	7x10	X		7x10	178 x 254	Feeder Lower Tray / All Destinations	197	197	197	98.5	197	276	197	138	
	8x10	X		8x10	203 x 254										
	A4	X		8.27x11.69	210 x 297	All Trays / All Destinations									
8.27" -- 8.50" 210 mm -- 216 mm	Letter	X		8.5x11	216 x 279	All Trays / All Destinations	192	192	192	96	197	271	197	136	
	Legal	X		8.5x14	216 x 356										
8.50" -- 9.02" 216 mm -- 229 mm	9x11	X		9x11	229 x 279	All Trays / All Destinations	175	175	175	88	182	252	182	126	
	C4	X		9x12.8	229 x 324										
9.02" -- 10.20" 229 mm -- 259 mm	ISO B4	X		9.84x13.9	250 x 353	All Trays / All Destinations	162	165	162	83	162	227	162	114	
	JIS B4	X		10.12x14.33	257 x 364										
10.20" -- 11.70" 259 mm -- 297 mm	Letter		X	8.5x11	216 x 279	All Trays / All Destinations	138	147	138	74	138	202	138	101	
	A4	X		8.27x11.69	210 x 297										
11.70" -- 14.33" 297 mm -- 364 mm	C4		X	9x12.8	229 x 324	All Trays / All Destinations	111	122	111	61	111	173	111	87	
	ISO B4		X	9.84x13.9	250 x 353										
	Legal		X	8.5x14	216 x 356										
	JIS B4	X		10.12x14.33	257 x 364										
Note the following sizes are 2-up per (two impressions per side)															
14.33" -- 17.01" 364 mm -- 432 mm	A3		X	11.69x16.54	297 x 420	All Trays / All Destinations	200	210	100	53	200	300	100	75	
	Ledger		X	11x17	279 x 432										
17.01" -- 18.12" 432 mm -- 460 mm	SRA3		X	12.6x17.7	320 x 450	All Trays / All Destinations	174	200	87	50	174	254	87	64	
	12x18		X	12x18	305 x 457										
	C3		X	12.8x18	324 x 458										
18.12" -- 20.50" 460 mm -- 520.7 mm	14.33x19.3		X	14.33x19.3	364 x 490	Stacker Offset - Edge Registered	168	174	84	44	168	252	84	63	
	B3		X	13.90x19.68	353 x 500										
	14.33 x 20.5		X	14.33x20.5	364 x 520	Bypass / Top Tray Only									

Xerox® Baltoro™ Inkjet Press Customer Expectations Document, v3.07 (December 4, 2020)

Baltoro Productivity Color Accelerator Config.	Standard Papers						Standard Mode		Standard Mode		High Speed Mode		High Speed Mode		Specialty Mode		Specialty Mode		
							IPM		PPM		IPM		PPM		IPM		PPM		
	Paper Dimensions Along Process Direction	Paper Name	LFF	SEF	Inches	mm	Notes	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex
7.00" -- 8.27" 178 mm -- 210 mm	7x10	X		7x10	178 x 254	Feeder Lower Tray / All Destinations	195	195	195	98	197	270	197	135	98	99	98	50	
	8x10	X		8x10	203 x 254														
	A4	X		8.27x11.69	210 x 297														
8.27" -- 8.50" 210 mm -- 216 mm	Letter	X		8.5x11	216 x 279	All Trays / All Destinations	192	192	192	96	192	270	192	135	97	97	97	49	
	Legal	X		8.5x14	216 x 356														
8.50" -- 9.02" 216 mm -- 229 mm	9x11	X		9x11	229 x 279	All Trays / All Destinations	181	181	181	91	181	255	181	128	90	90	90	45	
	C4	X		9x12.8	229 x 324														
9.02" -- 10.20" 229 mm -- 259 mm	ISO B4	X		9.84x13.9	250 x 353	All Trays / All Destinations	162	165	162	83	162	225	162	113	81	83	81	41	
	JIS B4	X		10.12x14.33	257 x 364														
10.20" -- 11.70" 259 mm -- 297 mm	Letter	X		8.5x11	216 x 279	All Trays / All Destinations	138	146	138	73	138	208	138	104	69	74	69	37	
	A4	X		8.27x11.69	210 x 297														
	C4	X		9x12.8	229 x 324														
11.70" -- 14.33" 297 mm -- 364 mm	ISO B4	X		9.84x13.9	250 x 353	All Trays / All Destinations	111	122	111	61	111	165	111	83	56	60	56	30	
	Legal	X		8.5x14	216 x 356														
	JIS B4	X		10.12x14.33	257 x 364														
Note: the following sizes are 2-up per side (two impressions per side)																			
14.33" -- 17.01" 364 mm -- 432 mm	A3	X		11.69x16.54	297 x 420	All Trays / All Destinations	200	210	100	53	200	300	100	75	100	106	50	27	
	Ledger	X		11x17	279 x 432														
17.01" -- 18.12" 432 mm -- 460 mm	SRA3	X		12.6x17.7	320 x 450	All Trays / All Destinations	174	196	87	49	174	270	87	68	88	98	44	25	
	12x18	X		12x18	305 x 457														
	C3	X		12.8x18	324 x 458														
18.12" -- 20.50" 460 mm -- 520.7 mm	14.33x19.3	X		14.33x19.3	364 x 490	Stacker Offset - Edge Registered	168	172	84	43	168	240	84	60	84	88	42	22	
	B3	X		13.90x19.68	353 x 500	Bypass / Top Tray Only													
	14.33 x 20.5	X		14.33x20.5	364 x 520														

Impact of System Updates

System updates may mean that previously printed jobs may not look the same when reprinted. This will be communicated in release documentation and may require you to engage your Xerox analyst to assist you in recalibrating any custom settings that you use. Xerox will attempt to minimize these impacts.

When considering new applications or media to print, testing the application is strongly recommended before transitioning to production.

Jam Clearance - Dryer

Access to the dryer(s) for jam clearance may be delayed to allow the dryer to stabilize to a lower temperature.

Paper and Media Support

The Xerox® Baltoro™ HF Inkjet Press prints on a wide range of plain (uncoated) papers, inkjet treated papers, offset coated papers, and special media. The Tested Substrate List (TSL) defines the specific papers that are supported, including weight range, sheet sizes, and coating types. The weight range specification for coated papers is defined by the approved media on the TSL. The TSL will also define if specific papers are only approved with Color Accelerator configuration, and if specific papers must be printed in Special Media Mode.

Upon delivery of the Baltoro, you will receive “Welcome Package” documentation that includes a URL at which you can access the latest TSL, which is updated and kept evergreen by Xerox. Please refer to the TSL at the website URL provided or on <https://www.xerox.com> for up to date information on papers that have been tested.

In general, Baltoro will perform more reliably with long grain paper.

Validation/Testing of Media

Any media that is not included on the TSL must be tested and validated by Xerox prior to use in production.

Extremely lightweight stock (60 gsm) should be tested with the intended print application prior to use.

Heavier weight stocks (216 – 300 gsm) should be tested with intended print application prior to use. The ability to support stocks in this range will vary based on the physical characteristics of the media as well as attributes of the print application including ink coverage and sheet size.

Perforated papers, offset pre-printed shells, and carbonless may be accepted based on Xerox test results. It is required that all perforated papers, pre-printed forms, and carbonless papers be submitted for proper evaluation. If a perforated paper is approved on the TSL, it should still be tested with the intended print application.

Specifications/Concerns with Specific Papers

Lighter weight papers should be loaded in the paper tray with the grain parallel to the front and back of the paper tray to increase stiffness.

Due to tensile strength, lightweight papers are more likely than other papers to curl and jam in the Press.

Oversized lightweight sheets (e.g. 11x17, A3, or larger) are more prone to cockle and curl which may result in poor stack performance.

The minimum width (cross-process direction) of any approved stock is 8.27 inches (210 mm) and maximum width is 14.33 inches (364 mm). Avoid duplex printing stocks between 8.7 – 9.7 inches in the cross-process direction.

The minimum length of any approved stock is 7 inches (177.8 mm) and maximum length is 20.5 inches (520.7 mm) in the process direction. Note: lengths longer than 19.7 inches (500 mm) cannot run to the stacker and must run to top tray or through bypass to a third-party finishing device.

Paper based tabs are supported, with the following specifications:

- Tabs must be approved on the TSL.
- Printing is supported only on the body (face) of the tab sheet, and not on the tab itself. No printing or jetting is enabled on, or near the tab elements. This restriction is in addition to the 3mm border erase feature.
- The actual printable area for tab stock is the overall tab stock envelope truncated by the tab width at the trail edge of the sheet, and also truncated by the 3mm border erase on all edges.
- Tab stock should always be loaded in tray such that the tab elements are on the trailing edge as it passes through the feeder module.
- Printing on tab stock is only allowable in the simplex mode such that the stock passes through the marker with the tab elements at the trailing edge.

Pre-drilled paper is supported with the specifications shown below. If a specific paper is approved on the TSL, then a pre-drilled version of that paper is approved.

- Drilled stock should always be loaded in tray such that the holes are on the leading edge of the sheet as it passes through the feeder module
- Because there is no hole validation check, no printing or jetting will be permitted on, or near the holes. The System designates the drill zone as an erase zone (no marking or jetting), during both the simplex and duplex printing process. The drill zone is independent of the 3mm border erase feature.
- Printing on drilled stock is only allowable within the body region of the stock. The actual imaging area for drilled stock is the overall drilled stock envelope truncated by the erase zone, or the larger of either the drill zone width or the border erase on the edge with the holes.
- Printing on drill stock is available in simplex and duplex mode.

Offset pre-printed shells (forms) are supported but must be on an approved media from the TSL. Additionally, before use in production, the offset pre-printed shell should be tested. Depending on its location, a logo or other pre-printed image on the form may interfere with the System's paper path sensors. A pre-printed shell may need to be loaded in a particular orientation or the operator may need to bypass a machine fault to enable the form to be used.

Unsupported Media

The Baltoro System does not support the following specialty media types: envelopes, windowed stocks, reinforced, transparencies, Mylar, digitally pre-printed shells (toner based) or adhesives backed labels.

Stock Library

The Stock Library is maintained at the Press's User Interface. The Stock Library shortcut button opens a window for operators to view all stocks and media defined for use on the System. From this window, it is possible to add, delete, and generally manage all stocks and media for use on the System. This library makes it easy to set up all stocks that are planned for use so operators can quickly select them when needed for a print run.

The TSL is the source of record for all stocks recommended for use with this press.

Use of Unqualified Media and Custom Cut Media

Usage of unqualified or non-recommended media that is found to cause damage to the device, increased maintenance, and/or increased service costs, is not covered under your FSMA or maintenance agreement. Media usage can be managed by moving to a comparable paper with better performance from our TSL and if you have any questions or need a recommendation from the TSL, please consult with your Xerox analyst; otherwise, continued use could result in billable Xerox service activity at current Time & Material rates.

Image registration, image quality, and machine reliability can be adversely affected when custom-cut paper is inaccurately cut, or is of poor quality, or when loose paper fibers are present on the cut edges. Your use of custom-cut paper that is found to cause damage to the device, increased maintenance, and/or increased service costs, is not covered under your FSMA or maintenance agreement. Any device performance problems caused by the use of such paper, if repairable, could result in billable Xerox service activity at current Time & Material rates.

Paper Storage and Handling

The best produced paper can be rendered useless if it is not properly packaged, shipped and stored. Proper care should be used to protect all paper stocks from moisture, contamination and physical damage.

Paper should be stored on pallets, shelves or in cabinets. If cartons or individual reams are to be stacked, proper care in handling is necessary to avoid damages to edges and corners.

The optimal storage location should be environmentally controlled and void of extremes in temperature and humidity. Avoid opening ream-wrapped papers until it is ready to be loaded into the press.

Image Quality

This section provides information on the System's performance with respect to print quality; however, you should use the print samples provided and the output from the testing of your own applications to validate for yourself that Baltoro HF System will meet your expectations in this area.

In addition, the best results will be obtained when pieces are designed with the capabilities of the System in mind.

Critical Aspects of Image Quality

Drop Sizes

There are four drop size modes, or ink use modes, optimized to enable the operator to make the best cost/quality for the application being printed:

- Small** – Optimized for reasonable IQ with aggressive ink savings
- Medium** – Default optimized for best IQ with conservative ink usage
- Large** – Best for good color gamut with reasonable ink usage
- Maximum** – Maximizes color gamut

Drop sizes should be used along with profile ink limit to optimize the ink usage for any given image quality needed. The drop sizes will affect both the text and the graphics and images, whereas the ink limit will only affect the graphics and images and will have no effect on black text. The defaults ink limits for each of the four drop sizes have been set up to produce a wide variety of ink usage and thereby color gamut. The largest drop size will use the most ink and have the widest gamut. The smallest drop size will use the least amount of ink and will have the smallest gamut.

All drop sizes may not be supported on a specific paper type. Refer to the TSL for any drop size limitations that may apply to specific papers. Key specifications for drop size usage include:

- In the Base Configuration, approved coated papers can use Small and Medium drop sizes only.
- With the Color Accelerator configuration, coated papers can use all drop sizes unless otherwise specified on the TSL.
- If the speed license is enabled, when printing uncoated or inkjet treated papers in High Speed Mode, jobs can be run with Small and Medium drop sizes only.

Color Rendering

The Xerox HF Inks have been designed to work best with inkjet treated and coated stocks. Uncoated media without an inkjet treatment may not be as vibrant as uncoated inkjet treated media. There are default profiles for each of the four drop sizes for inkjet treated and uncoated stocks. The best color rendering for these types of media can be achieved by building a custom destination profile with the intended paper and the drop size and ink limit combination desired. Because the ink/media interactions are very critical for coated stocks, custom destination profiles for coated stocks must be created for each coated media. Custom destination profiles can easily be created from the FreeFlow Print Server and use the Inline Spectrophotometer to optimize the color rendering for the media.

Patented Multibit Vector Half-toning algorithms take full advantage of print head 1200 dpi resolution and bit depth to provide step-free sweeps and vignettes. Ink Density Optimization using the Integrated Imaging Module (IIM) can be run on any media to automatically adjust each page for optimum uniformity.

Artifacts Near Sheet Edges

Image Quality artifacts (such as blurring of images, lines, or text) may be more noticeable within 10 mm of any sheet edge (Lead, Trail, Inboard, or Outboard). Jobs that contain text, images, or lines within 10 mm of a sheet edge should be tested to confirm that image quality meets the requirement of the job. These artifacts can be improved by moving critical text or images further in from edges or by using oversized sheets which are cut to finished size.

Lines Quality

The System can print solid lines down to 0.12 points and is able to maintain the relative differences in point size widths for lines as narrow as 0.24 and 0.36 points.

Text Quality

Black text quality is excellent for sizes as low as 4 point. Color text and text reversed out of tints will hold good edge quality down to 6 point. The System does not require the addition of cyan or other colorants to black to achieve a good black. However, it is an available option which in some cases can increase the text density.

Missing Jet Detection and Correction

The Baltoro System can automatically compensate for missing jets during print runs. Missing jet detection is automatically performed by the Press, using the IIM, which scans a test pattern that is printed at a user-defined frequency, e.g. every 250 sheets. If the IIM detects missing jet(s), the System will compensate for them, without the need for any manual intervention by an operator. There can be a delay between detection and when compensation is applied, based on processing time.

Missing jet correction utilizes adjacent jets to “mask” the missing jet until a purge can be completed and the missing jet can be restored. Missing jet correction will be applied at all levels (Small, Medium, Large, and Max).

Missing jet correction may be less effective when printing higher density images at the larger drop sizes (e.g. Large and Max). This is because there are fewer opportunities for an adjacent jet to be used for compensation, since most of the jets are being utilized to produce the high-density image. For these and other quality-sensitive jobs, it is advised that an operator periodically perform quality checks to visually inspect during a Press run. Missing jet correction may also be less effective on gloss coated papers. There may be circumstances when the missing jet correction routine is ineffective, and a purge is required.

Baltoro provides operator accessible setpoints for missing jet notification. Key features of this capability include:

- The System will raise an alert to the operator when the number of missing jets or number of adjacent missing jets exceeds a threshold.
- This threshold varies by color due to differences in visibility or severity of a missing jet for each color.
- The default value for these thresholds is set to a level at which missing or adjacent missing jets may cause objectionable print defects.
- These thresholds maybe lowered by the operator for a job with high sensitivity to missing jets or raised by the operator for higher system productivity when there is less sensitivity to missing jets.
- The operator may choose to have the press automatically stop printing a job when this alert is raised or may allow the Press to continue to run while monitoring missing jet counts measured at each correction interval.

It is expected that some missing jets may be present and uncorrected at startup and will accumulate in between correction intervals (i.e. when the System checks for missing jets).

Other Artifacts

As with any printing process, artifacts will occur on the System. These include streaks, missing jets, corduroy, banding, graininess, spots and deletions. For most jobs and clients, the expected level of artifacts is within the normal operational and component quality ranges of the System and will not affect the acceptability of the job. Maintenance procedures including purging are available to mitigate these artifacts. Random artifacts will occur, but at much lower rates than other color printing technologies. Artifact-sensitive jobs should be monitored. Using products on the Tested Substrate List and maintaining your environment will also help to minimize the occurrence of these artifacts. Coated stocks may exhibit higher level of graininess; severity of graininess would depend on factors such as characteristics of the coating and paper weight.

Trapping

The System allows you to be flexible and have full control of trapping. In some cases, trapping will be required due to the precise nature in which the edges of the objects are rendered. Trapping is provided at the Freeflow Print Server front end with parameters optimized for System characteristics.

Proofing

Color rendering technology offers the ability to control the tradeoff between color gamut and amount of ink used for any job. Press proofing is recommended as providing the best match to production. The System is not designed or recommended as a proofer for any other presses. Ensuring consistent RIP parameters and following the prescribed maintenance procedures including calibration will enable the closest match to the proof.

Profiling

For Inkjet Treated and Uncoated media, you can select from predefined profiles or create custom profiles. For all coated papers, ink coverage and ink limits are critical factors in ensuring both overall Image Quality and ink drying. Therefore, for validated coated papers, the TSL will specify drop size recommendations for each media.

There are default profiles for each of the four selectable drop sizes (Small, Medium, Large and Max) for both inkjet treated and untreated plain papers. These profiles have been developed to work well with a variety of papers in each of these two paper categories. The ink limits for each of these profiles has been optimized to provide easy selection for production operators who may not have the advanced skills needed for sophisticated color management. The operator has only to select a predefined profile for a job to set the quality and cost for each print run. In general, the larger the drop size selected, the more vibrant the print but the more ink will be used.

The chart below shows the options from low cost to high quality:

Paper Category for Coating	Average Maximum Ink Drop Size
Uncoated	Small
	Medium
	Large
	Max
Inkjet Treated	Small
	Medium
	Large
	Max
Coated	Small



Lower Cost

To control cost and quality, there are eight default destination profiles that an operator can easily select on the print server Color Management screen — four for Untreated paper and four for Treated paper. Each selection delivers a different level of cost and quality.

Higher Quality

	Medium
	Large *
	Max *

* For Coated media, Large and Max drop are only available with the optional Color Accelerator.

Because papers can differ widely, customers may want to create custom profiles to achieve a certain look on a particular paper that is different from what the standard defaults provide. This is done by creating a new destination profile with the ILS. This is done directly from the FreeFlow® UI. There are three easy steps to follow:

1. Select the stock.
2. Select one of four possible settings for drop sizes:
Small, Medium, Large, and Max.
3. Select the ink limit.

The default ink limit is the same as the ink limits in the default profiles for the paper and drop size selected. The ink limit can be adjusted higher (for more vibrancy) or lower (for cost savings). For a given paper type and drop size, the System will impose the maximum ink limit that can be selected. This is to avoid possible paper path contamination because of too much ink being used. The maximum ink limit varies by paper type, e.g. uncoated or inkjet treated. Therefore, it is extremely important that the appropriate paper type is entered when adding a stock, and that the press interface GUI indicates the correct paper type. For example, if the operator does not enter the correct paper type and applies an ink limit designed for an untreated paper to what is actually a treated paper, too much ink will be applied and paper path contamination could result.

For coated media: the default ink limits for creating custom profiles are set up to mirror the settings of uncoated. The operator has the flexibility to adjust both drop size and ink limit to achieve desired image quality and the IQ / cost tradeoff.

Because paper coatings can have a significant effect on Image Quality, there are no default profiles for coated stocks. The operator should create a custom destination profile on the specific TSL recommended media they wish to print on. As with the uncoated and inkjet treated stocks, the default ink limits for each drop are designed to enable the operator to make the best cost/quality tradeoff for their application by selecting the appropriate drop size with its default ink limit.

FreeFlow® Print Server (FFPS)

FreeFlow® Print Server (“FFPS”) works as the Digital Front End for the Baltoro System, rasterizing incoming files and providing a number of other critical functions for print processing. The print server:

- Receives print jobs from various sources—over the network or directly at the server
- Organizes the jobs into queues for efficient processing
- Interprets incoming print files and converts them into a raster format so that the print engine can process them
- Applies printing parameters to each job
- Allows the operator to manage jobs (Set IQ parameters, change Job Properties, and Hold and Release)
- Allows the operator to manage color processing and image quality for jobs and queues

FreeFlow® Print Server handles a wide range of network connections and data streams. Since this print server supports most Xerox printers, it offers customers a common workflow and a common UI for all document production.

This server also integrates with FreeFlow® Core, a suite of workflow applications that can connect the Xerox Cut Sheet Inkjet System to a customer’s entire operation with a host of automated solutions. With FreeFlow® Core, customers can implement a more efficient print manufacturing process with more exciting revenue opportunities and fewer unnecessary costs. Xerox FreeFlow® Core is a total solution for automated print production, including JDF/JMF connectivity to external systems, as well as workflows for conversion, preflight, image enhancement, imposition and print job web submissions. For more information about FreeFlow® Core, see <https://www.xerox.com>.

Version 24 of FreeFlow® Print Server supports the Press. This version features hardware enhancements with a faster CPU, and more memory. In addition, the Web UI provides remote access from any Windows PC or Mac with a specified web browser.

The total time consumed to print a variable data job will vary as a function of variable coverage and element demographics (size and percentage of variable text vs. images/graphics). Overall, System performance is dependent upon many factors, including the variable data application and workflow, network environment, image quality settings, and RIP and print rates. Under certain circumstances, use of large, high-resolution images printed page-to-page in variable data applications will degrade RIP performance, in some cases to a degree which may affect System throughout.

Freeflow® Print Server Specifications

Hardware Item	Specification / Note
Server	Dell PowerEdge T640 server
Processors	2 x Intel Xeon Gold 6126, 2.6GHZ, 19.25M, 125W, 12C/24T
Platform OS	Windows 10
System Memory	64 GB (8 x 8GB 2666MT/s DDR4 SDRAM)
Hard Drive	6 x 1.2TB 10K RPM SAS 12Gbps, 512n
CD Drive	One (1) DVD+/-RW, SATA Drive, Slimline
Access	DELL USB Keyboard, mouse, and flat panel monitor
Removable Hard Drive	Optional
Stand (Caster Kit)	Optional

Web UI Browser Requirements

To access the print server remotely, a PC (Windows 7 or higher) or Apple Mac computer can be used, with one of the following web browsers set forth below. No other software is required.

- Internet Explorer 10 or higher
- FireFox 37 or higher
- Chrome 42 or higher
- Safari 7 or higher

Adobe PDF Print Engine

The FreeFlow® Print Server version 24.0 incorporates Adobe PDF Print Engine version 4.4 as a standard licensed feature. Adobe PDF Print Engine provides true native rendering of PDF files, using common rendering with the Adobe Creative Suite. This technology ensures output matches the creative vision, including effects such as live transparency, blending modes and drop shadows. The integration of Adobe PDF Print Engine also takes advantage of the unique strengths of FreeFlow® Print Server, including color profile and spot color table accuracy and the high performance of the Parallel RIP.

The rendering engine in FFPS 24.0 uses APPE for all data streams including legacy PDF jobs with overprint and black overprint. The Adobe PDF Print Engine path can result in visual output and performance differences based on job characteristics. The FreeFlow® Print Server uses the Adobe PDF Print Engine for PDF processing, the queue can continue to accept and process jobs in other traditional formats such as PostScript and VIPP. It is required that key applications be tested through the file test group to evaluate quality and performance prior to implementing.

Licenses

The Xerox FreeFlow® Print Server has the licensable features set forth below. These features may come standard or have an associated price depending on your geographical region. A service technician will activate your selections by supplying the license string, expiration date, and print engine serial number.

- Server – Base application
- CID Fonts (not available in all geographies)
- AppleTalk Gateway (not available in all geographies)
- VIPP* (i.e., VI Compose)
- Preflight
- Adobe Native PDF Decomposer
- IPDS
- LCDS

* The VIPP® features require a license and have fees associated with it. A demonstration version of VI Compose software is included with the base System. This version without a license will function in demonstration mode with full functionality, allowing customers to submit and print VIPP jobs. Only the first 200 pages of any VIPP job will print. To remove this page limitation, the VIPP License Feature needs to be enabled.

Supported Print File Formats

The print server supports the following file formats:

- PDF up to version 1.8 (Acrobat 9); including PDF/VT-1, PDF/X-1a, PDF/X-3, and PDF/X-4
- IPDS
- Postscript level 1, 2, and 3
- JPEG
- TIFF v6.0, native and multi-page, TIFF-IT is not supported
- PPML
- VI Compose (Optional) – AKA VIPP
- LCDS

The following print file formats are not supported natively and require conversion:

- ASCII
- PCL

Running Antivirus Software

If a customer decides to install an anti-virus product on its FreeFlow® Print Server, the customer is responsible for maintaining updates to the product. If System reliability and performance issues are subsequently reported, Xerox, before attempting to diagnose or troubleshoot the problem, will request the product be removed and the problem be replicated.

The following antivirus software can be installed on FreeFlow® Print Server and has been validated by Xerox:

- Symantec™ Endpoint Protection 12.1.5
- McAfee Complete Endpoint Protection—Enterprise

Note: Only Virus and Spyware protection should be enabled with these products. Firewall and other tools should not be used with FreeFlow® Print Server.

Security

You are responsible for assessing the security risk for their environment and defining appropriate mitigation that may include changes to the default settings of the Xerox equipment or standard operating processes. Xerox understands the importance of maintaining a secure network environment and recommends that customers change the default “built-in” passwords and modify the security-related configuration options to satisfy their site-specific security requirements upon completion of System installation. Xerox is committed to helping the customer keep the print server secure and compliant with the latest security requirements. This is managed via a Security Audit Process.

For more guidance on implementing security, see <http://www.xerox.com/security>

Xerox monitors alerts announcing new security vulnerabilities. These alerts are evaluated for impacts to the System and software. All patches applicable to the print server products are prioritized based on severity, System tested, and integrated into SPAR releases.

Xerox’s Technical Service organization will install SPAR updates on your FreeFlow® Print Server. Please contact your support Analyst or the Xerox Welcome Center for information on the applicability and availability of security patches. The System cannot be patched or upgraded while operating/printing.

Disposal of Hard Drives

Some IT communities may request information on the handling of hard drives when equipment is returned to Xerox. They may also ask for a Statement of Volatility (SOV) or a Letter of Volatility (LOV). These documents are available for both the FreeFlow® Print Server and the Print Engine. Contact your Xerox analyst or sales representative for further details.

In the event of hard drive failure, or a return of the printing System to Xerox, the customer is responsible for assessing the risk of “sensitive data” having been captured by the FreeFlow® Print Server and Print Engine hard drives. Sensitive data includes Personal Health Information (PHI), Personally Identifiable Information (PII), and Payment Card Information (PCI). If you have any concerns about exposing such data outside your secure environment, contact your Xerox analyst or sales representative and inquire about the hard drive removal service offering.

Windows Utilities

Proxy Setup – FreeFlow® Print Server proxy setup can be configured through Windows Internet options under Control Panel.

Network Setup for CFA – A Web proxy support in Windows based FreeFlow® Print Server system to push the CFA data from PSIP System to the Xerox servers. An Apache HTTP server is used as Web proxy server in the FreeFlow® Print Server system. Apache HTTP server is deployed in FreeFlow® Print Server system as a Windows service to forward the proxy request from PSIP to Xerox Network.

Network Settings – FreeFlow® Print Server Network setting can be configured through Windows Network and Sharing Center.

FreeFlow® Print Server Local and Remote UI

FreeFlow® Print Server version 24.0 has an all new web-based U I. The UI runs in Microsoft Internet Explorer (IE) on the local machine with the browser controls hidden. The Web UI is compatible with IE 10.0, Chrome, and Firefox. The UI can be accessed remotely using any of these browsers without requiring any additional software to be loaded on the remote machine. The UI is accessible from smart phones and tablets as well, but the full functionality may be limited.

Xerox FreeFlow® Workflow Solutions

A variety of workflow solutions software is available from Xerox, enabling capabilities such as Web to Print, Prepress, Job Management and Variable Data Publishing. Examples of these workflow software products include, but are not limited to, the following. For additional information, please refer to Xerox.com.

Web to Print

- o XMPie® StoreFlow™

Prepress / Output/Job Management

- o FreeFlow® Core
- o FreeFlow® Makeready
- o FreeFlow® Output Manager™

Variable Data

- o FreeFlow® Variable Information Suite

- o Compant DocuBridge™ Suite
- o GMC Inspire™
- o Solimar Post-Composition Document Re-Engineering Solutions

Other Xerox and 3rd Party Solutions

Many other Xerox (e.g., XPAF) and third-party software solutions are also available for use with the Baltoro System that can be obtained via 'The Xerox Connection'. These solutions enable functionality such as Device Management, Cost Control/Accounting, Output/Job Management, Variable Data, Web to Print, Host Connectivity, etc. For more information, please contact your sales representative regarding solutions and pricing available from The Xerox Connection.

Consumables

Xerox supplies are engineered specifically for use in the Baltoro System and provide the highest image quality, maximum machine productivity and efficiency. The quantity delivered with the press, the recommended initial order quantity, and yield estimates are shown in the table below.

Order Number	Description	Starter Quantity	Recommended Order Quantity	Life Expectancy	Comments
008R13256	Black Aqueous Ink	1	5	200,000 images per bottle	Two 5L bottles per pack (10L total) Ink yield may vary
008R13257	Cyan Aqueous Ink	1	5	200,000 images per bottle	Two 5L bottles per pack (10L total) Ink yield may vary
008R13258	Magenta Aqueous Ink	1	5	200,000 images per bottle	Two 5L bottles per pack (10L total) Ink yield may vary
008R13259	Yellow Aqueous Ink	1	5	200,000 images per bottle	Two 5L bottles per pack (10L total) Ink yield may vary
008R13255	Aqueous Wiper Fluid	1	2	200,000 images per bottle	One 10L bottles per pack (10L total) Fluid yield may vary
008R13260	Waste Bottle	2	None	n/a	Empty Wiper Fluid bottles can be used as waste bottles

Order Number	Description	Starter Quantity	Recommended Order Quantity	Life Expectancy	Comments
003R11543	11" x 17" Xerox Bold	1	None	500 sheets	003R11543
003R11540	8.5" x 11" Xerox Bold	1	None	500 sheets	003R11540
003R11542	8.5" x 14" ColorXPR+	1	None	500 sheets	003R11542
502S11633	Flushing Fluid	1	None	6 months estimated supply	1L bottle (Replenished by Xerox Service)
600T00563	Safety Goggles	1	None	n/a	Order when needed
099P3228 (M)) 099P3229 (L)	Nitrile Gloves	1 box of 100 1 box of 100	None	n/a	Order when needed

Life Expectancy (ink yield) will vary based on area coverage, drop size, profile, and purge frequency. Initial supply order recommendations equate to roughly two months' inventory when printing documents with approximately 30% total area coverage, with Medium profile and default ink limit in a 1x5 operation producing 1M impressions per month. Higher print volumes will require additional levels of inventory.



To ensure proper performance, Baltoro HF Ink must be stored unopened, protected from direct sunlight, and at temperatures between -10°C to +40°C (+15°F to +104°F).

Baltoro HF Ink has a shelf life and expiration date. Do not use ink that has expired as this may damage the print heads. Ink must be used within 18 months of the manufacturing date. This date may be found as the Lot number, in the format YYMMDD, on the ink bottle label and/or the outer shipping box. An example ink bottle label is shown at left, in which the Lot number of 200414 corresponds to manufacturing date of April 4, 2020.

To order ink, aqueous wiper fluid, or waste bottles, call the Xerox Supply Center or order on-line from Xerox.com.

Safety goggles and nitrile gloves can be purchased by Xerox's U.S. and Canadian customers through Xerox by calling 1-800-828-5881. All other customers can purchase them by contacting their local Xerox service representative.

Empty Aqueous Wiper Fluid bottles can be repurposed as Waste Bottles when they are empty. Removing the Wiper Fluid label will expose a waste label underneath. However, since Waste Bottles are likely to fill at a faster rate than Wiper Fluid bottles are consumed, spare Waste Ink bottles should be ordered and kept on hand.

It is not necessary to order flushing fluid, as this will be replenished by your Xerox service representative.

The paper noted above is an initial supply shipped with the Baltoro System and is not replenished by, or reordered through, Xerox.

Safety Considerations for the Ink

Xerox will deliver to you certain Safety Data Sheets (SDS) required under the Occupational Safety and Health Administration Hazard Communication Standard in electronic form (via email, pdf file, CD or such other electronic form), which you consent to such electronic delivery via your signature on this CED. At any time, you may withdraw your consent for electronic delivery of the SDS by notifying your Xerox account representative and allowing reasonable time for Xerox to process this withdrawal. In addition to printing a paper copy of the electronically-provided SDS, you can also download the latest SDS from <https://safetysheets.business.xerox.com>, or request a paper copy of the SDS be mailed to you by contacting your Xerox account representative. Or, US and Canadian customers can call Customer Service at 1-800-ASK-XEROX.

Disposal Process

The Baltoro Press uses aqueous inks that are not regulated as hazardous waste in the United States under 40CFR261 or in the EU according to the Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (as amended - including by Directive (EU) 2018/851); European Waste Catalogue code 08 03 13. Please consult with your local waste disposal authorities for additional information.

Customer Expectations Agreement

Prior to signing an order or agreement for a Baltoro System, a review of the Xerox® Baltoro™ HF Inkjet Press CED is required. This document lets you know what to expect in terms of product features and product performance, as well as what Xerox expects of you. It is used in conjunction with the agreement under which you are acquiring the System from Xerox.

1. I have reviewed and understand capabilities and considerations of product operation.
2. I understand the expectations for System availability and productivity.
3. I have viewed a representative output sample from the Baltoro HF System and the print quality is acceptable for the needs of my organization.
4. I understand that my organization is responsible for the following activities identified in the Customer Expectations Document. Note that as part of the structural inspection process, Xerox **strongly recommends** that customer retain a structural engineer to inspect and approve the site:
 - a. Ensuring provision of space and siting for the System that meets Xerox requirements, including environmental controls and the completion and execution of the HVAC Inspection Certification and Site Checkout Proforma document included in the IPG.
 - b. Completion and execution of the Floor Loading Certification and Authorization for Delivery document included in the IPG.
5. I have installed / plan to install dedicated, grounded electrical supply.
6. I agree to provide a connection to the Internet to enable remote support services.

We appreciate your time in reviewing this document and would like to welcome you as an important customer of Xerox® Baltoro™ HF Inkjet Press.

Xerox Confidential, Do Not Distribute

I have reviewed and acknowledge agreement with this document:

Date _____

Customer

Xerox Sales Representative

Xerox Field Manager Technical Support