SHARP

Be Original.

BP-90C80
BP-90C70

Digital Full Colour Multifunctional System

A heavy-duty solution for colour printing on demand

In-house printing made fast and easy

In a print-on-demand environment, you need a powerful and versatile colour MFP you can trust. Packed with proven Sharp technology, this MFP delivers consistent performance even under the most demanding conditions. Advanced features such as an external or embedded Fiery® server option and improved edge-to-edge printing make it easier than ever to print professional-quality documents. Say goodbye to outsourcing your print jobs and embrace the cost savings and control that come with managing your printing in-house.
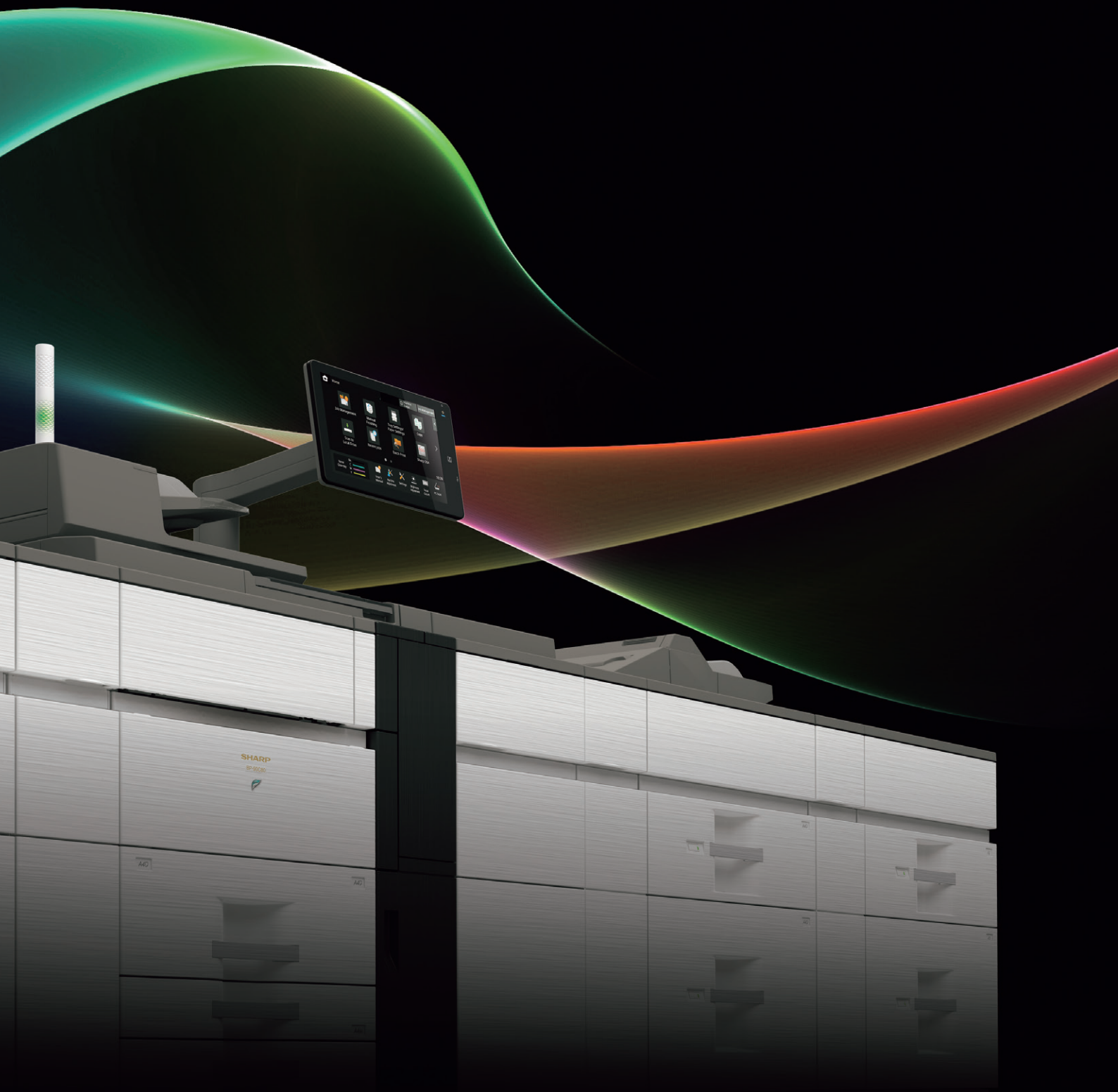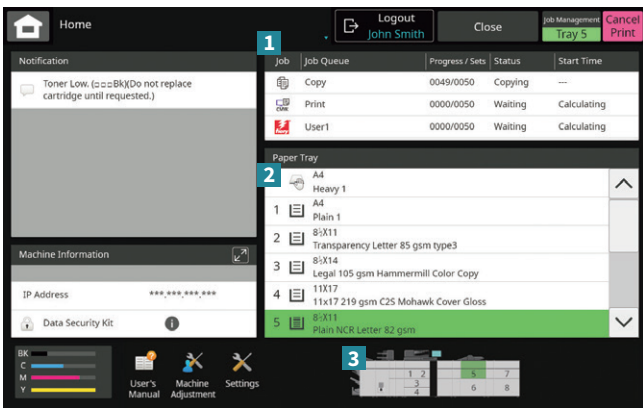
SMOOTH OPERATION

Anyone—including newcomers to your team—will be able to operate the MFP and take advantage of its advanced features in no time.

On-Screen Machine Status

The machine status screen shows the state of your MFP, displaying the current operation and notifications for things like paper, toner, and maintenance.

1 **Job queue** This shows a list of the jobs in progress. Tap on a job to go to the job management screen.
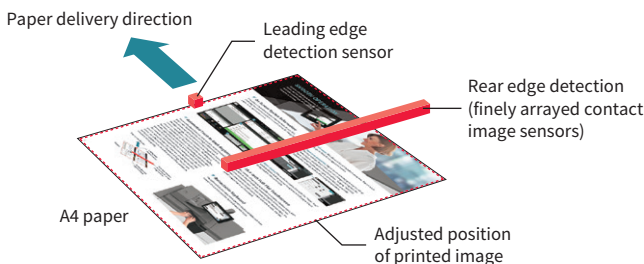
2 **Paper tray properties** Tap on an on-screen paper tray to call up the tray settings. From there, you can change and register the type of paper used and other information. Tapping "Add/Edit Paper Settings" in the upper-right corner lets you precisely adjust other settings, such as the fusing temperature.
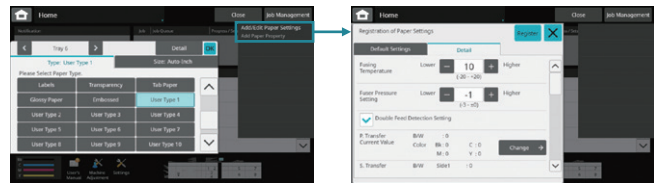
3 **Mimic display** This works in conjunction with the "Paper Tray" window above, letting you see at a glance which paper tray is being used for the current job.

Automated Front-to-Back Registration

Based on feedback from two paper-position sensors located in the paper path, the MFP employs an image shift function to automatically adjust the position of printed images with respect to the edges of a page. This precise front-to-back registration ensures exact correspondence of the printed material. This helps you achieve consistently high levels of quality when you make leaflets, brochures, and other documents—including those with two-sided double-page spreads or those that are to be saddle stitched and trimmed. To further enhance front-to-back registration, the MFP also automates adjustments of the vertical/horizontal ratio and position settings by scanning a test chart, calculating correction values, and reflecting them in the paper settings. You can save registered adjustments to streamline your workflow and ensure consistent output quality.

Paper delivery direction

Leading edge detection sensor

Rear edge detection (finely arrayed contact image sensors)

A4 paper

Adjusted position of printed image

15.4-Inch Full-Flat Touchscreen

With a variety of functions accessible via simple, intuitive icons, MFP operation is smooth and easy. Customising the home screen has become easier than ever. For easy viewing at the desired angle, the control panel can be tilted front to back and side to side, and the panel's support arm can be rotated.

Retractable Keyboard

A full-size retractable QWERTY keyboard slides out from beneath the control panel for fast and easy text input.

IMAGE QUALITY

Enjoy a consistently high level of print quality, even for demanding, large-volume jobs.

2,400 dpi High-Resolution Output

The MFP delivers razor-sharp 1,200 × 1,200 dpi printing—without sacrificing output speed. Digital smoothing technology enhances the print resolution to the equivalent of 9,600 × 600 dpi for smooth reproduction of fine lines. Fine-grained photographs, detailed illustrations and graphs, and small text come out crisp and clear. What's more, the MFP supports 2,400 × 2,400 dpi writing resolution for CAD data and text.

Standard mode   Fine-definition mode

Mycrostoner Crystal 2

Sharp's proprietary toner expands the colour reproduction range for more natural rendering of clear blue skies, emerald green oceans, and similar images.

Developer Refresh System

In order to achieve consistent image quality from first page to last, Sharp developed the developer refresh system. In this system, toner and carrier are delivered to the developing unit at the same time. By discharging old developer little by little and continuously replacing it with new developer, this system prevents developer deterioration, ensuring stable print quality over the long term.

Toner cartridge

Toner (magenta)

Carrier

(Conceptual image)

Discharged
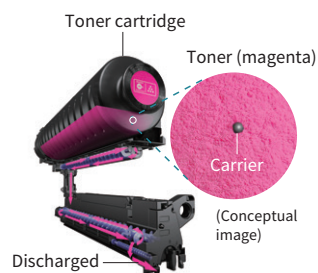
Auto Process Control

To maintain a consistently high image quality during large-volume print jobs, the MFP employs an enhanced periodic colour calibration system. Image density sensors monitor image consistency to minimise colour variance between pages. As an added advantage, the MFP makes the necessary colour adjustments without stopping the print job, ensuring time-efficient printing.

Sensor

(Conceptual image)
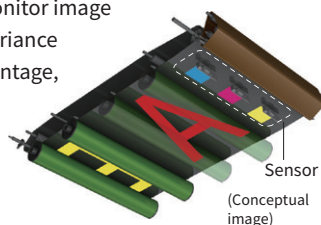
Bow Correction

To produce high-quality colour images, one issue you need to overcome is colour misalignment. This can occur when layers of colour are not perfectly aligned, owing to bowing errors. To correct this problem, the image data is automatically shifted in the sub-scanning direction to correct the bowing for each colour.

Before   After

Paper delivery direction   Paper delivery direction
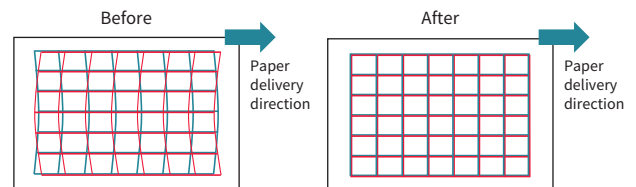
Full-Length Guaranteed Print Range

You don't have to worry about print quality degrading on the edges of your documents. The guaranteed print area reaches right to the edges of the printable area. This means that superb print quality is assured across the entire printable length of 319 mm.

Precise Colour Registration

To meet the demands for high image quality, accurate colour registration, and stable output, the MFP employs functions that automatically make the right adjustments at the right time without sacrificing print speed. These functions enable the MFP to deliver highly precise printing and stable colour quality, so that a consistently high level of print quality and productivity is maintained over the long run, from first page to last.

- When printing large numbers of multi-page documents, the MFP automatically adjusts the print position so that each of the CMYK colours is printed at the correct registration.
- The MFP's registration sensors precisely detect the position of registration patches printed on the transfer belt. These measurements are then used to make minute adjustments—when necessary—of the print position for each CMYK colour.
- The temperature inside the machine is measured by sensors in key areas of the MFP, such as the LSU (laser scanning unit) and paper-transfer section. The MFP uses this information to make automatic adjustments before print quality can be affected by temperature changes.
- For even greater precision, a sensor detects any skewing of the laser beam that goes from the LSU to the photosensitive drum, so that the MFP can make automatic adjustments to eliminate such skewing.

4

VERSATILITY

Thanks to its range of smart finisher options, you get superb-looking documents every time.

Versatile Paper Handling

The MFP accommodates a wide variety of sizes, weights, and types of paper, expanding the range of possible printing applications.

- **Paper Sizes:** The MFP supports an extensive range of standard paper sizes from A6 to SRA3/A3W (5 $^1/_2$" × 8 $^1/_2$" to 13" × 19"). You can set custom paper sizes in a range from 90 × 140 mm to 330 × 448 mm (3.625" × 5.5" to 13" × 19.2"). And the MFP can also handle extra-long paper up to 1,300 mm in length and 305 mm in width.

Standard mode

90 mm
140 mm
330 mm
448 mm

Long paper mode

Max. 305 mm wide

SHARP

Sporty Style Revolutionised

Revamped transmission converts engine power with unmatched efficiency for high-performance driving on every stretch and turn

Max. 1,300 mm long

- **Paper Weights:** The MFP handles paper as thin as 55 g/m^2 and as thick as 360 g/m^2. Duplexing is possible for paper ranging from 60 g/m^2 to 360 g/m^2.
- **Paper Types:** In addition to plain paper, the MFP accommodates a number of other paper types—including coated, textured, or embossed paper—as well as envelopes. This gives users the flexibility to fulfil diverse printing needs.

Full-Bleed Printing

With its edge-to-edge printing, the MFP can print right to the top and bottom edges of the page—only the lead and trail side edges need to be trimmed to achieve a full-bleed effect. This makes it easy to create professional-looking banners in-house—and booklets too, if you use the optional trimming module and saddle stitch finisher. Edge-to-edge printing is available for both Windows and Mac printer drivers and for paper up to 668 mm long.
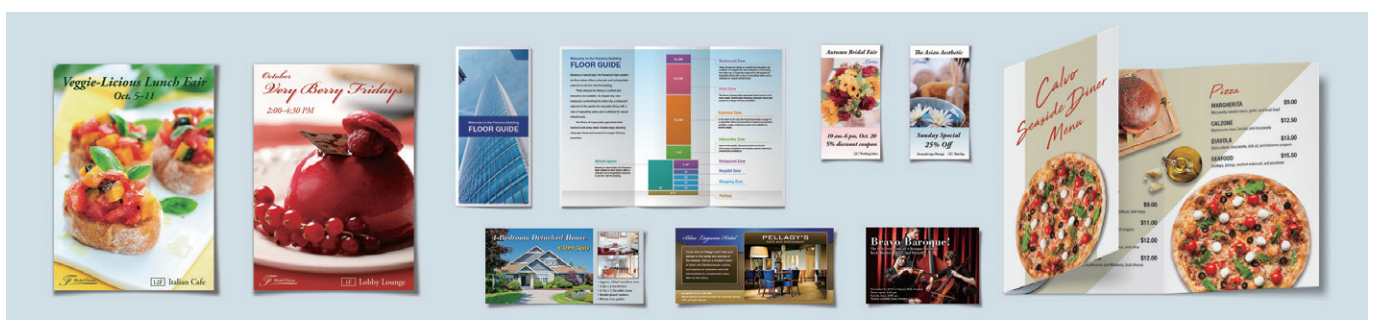
Full-bleed A4-size booklet

In-line trimming

Full-bleed A5-size booklet

In-line trimming

**Full-bleed 668 mm-long banner**

Max. 297 mm wide

Max. 668 mm long

Professional-Quality In-Line Finishing Options

A range of finishing options work to automate time-consuming finishing tasks. Options are available to suit a variety of workplaces and applications.

Stapling

With a maximum output capacity of 4,250 sheets, handy finishers provide three stapling positions—front corner, rear corner, and two-point side—for up to 100 sheets per set.

Rear corner Front corner 2-point side
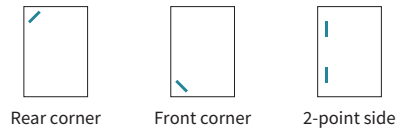
Punching

The finishers can be equipped with four different kinds of optional punch modules. These allow you to punch two to four holes in a document.

2-hole punching 3-hole punching 4-hole punching 4-hole wide punching
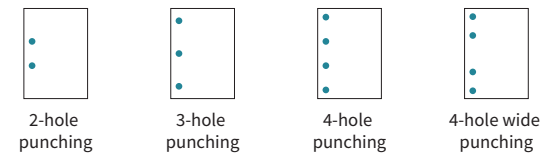
Saddle Stitching

The saddle stitch finisher automatically staples and folds sets of documents up to 20 sheets. It's perfect for creating professional-looking booklets, pamphlets, and business proposals.
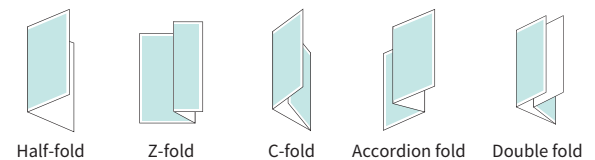
Saddle fold Saddle stitch
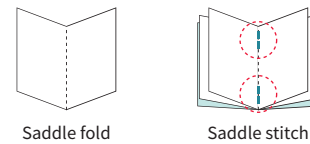
Trimming

The edges of saddle-stitched documents can be trimmed to a beautifully consistent finish.
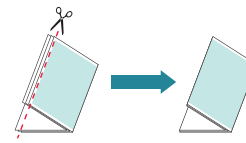
Folding

The MFP automates five types of folding for efficient production of direct mail and other items.

Half-fold Z-fold C-fold Accordion fold Double fold

Insertion

Thanks to two 200-sheet input trays that can handle different types of paper, the inserter can add pre-printed covers and coloured pages to give documents a high-grade, professional look.

Cover Inner page
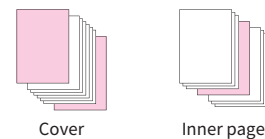
	MX-FN21 Finisher	MX-FN21 Finisher + MX-FD10 Folding Unit	MX-FN22 Saddle Stitch Finisher	MX-FN22 Saddle Stitch Finisher + MX-FD10 Folding Unit
Stapling	✓	✓	✓	✓
Punching[1]	✓	✓	✓	✓
Saddle folding			✓	✓
Saddle stitching			✓	✓
Folding		✓		✓
Trimming[2]			✓	✓
Insertion[3]	✓	✓	✓	✓

*1: Requires optional punch module. *2: Requires optional trimming module. *3: Requires optional inserter.

FIERY® SERVER

A powerful Fiery server option adds further versatility to an MFP that can already handle a wide variety of documents.

Outstanding Quality and Efficiency

Paired with an industry-leading Fiery server, the MFP becomes a powerful integrated solution for managing professional in-plant and busy on-demand printing environments. Two options are available to match your needs: the multifunctional BP-PE10 external server, or the more affordable BP-PE11 embedded server.

Centralised Control The BP-PE10/PE11 Fiery Server offers a centralised solution that features the Command WorkStation with an industry-standard print job management user interface. It's intuitively easy to preview jobs, check their progress, and do reprints. With the BP-PE10, Command WorkStation is fully integrated at the MFP's control panel. This allows you to monitor, control, and troubleshoot production directly from the touchscreen.

Automated Workflows Fiery Hot Folders give you a quick, automated way to send files to a Fiery server using predefined settings. There's no need to input the same settings for repeat jobs or frequently used layouts. Just drag and drop print files into a Hot Folder and start printing. You can also share Hot Folders with other users on a network.

Adobe PDF Print Engine The BP-PE10 employs Adobe PDF Print Engine (APPE) rendering technology, which supports a native end-to-end workflow for PDFs. APPE directly RIPs your PDF documents without converting them to PostScript. This eliminates errors during printing—even errors with transparency effects.

Fiery Impose Imposition software that you can operate when checking a preview. You can register frequently used impositions as templates, for easy reuse.

Fiery Compose A utility you can use while checking previews that makes it easy to do chapter finishing tasks such as mixing paper or inserting duplicate dividers and tabs.

Variable Data Printing With Fiery FreeForm Create, you can quickly and easily customise existing files for free using an intuitive interface. With just a few clicks, you can add text, images, and other variable elements to PDFs. Master-element data is sent to the colour controller in advance and stored in rasterised form. This data is then combined with variable elements for output, which reduces RIP time.

Fiery Graphic Arts Pro Package A powerful suite of quality-control tools that lets you control halftone simulation, soft proofing, paper simulation, and CMYK separations, leading to improved colour management, proofing, and workflow. For example, Fiery ImageViewer lets you preview post-RIP raster files and adjust the colour before printing. Fiery Postflight helps you visually identify page element errors. And Fiery Preflight Pro brings advanced PDF quality control checks for file compliance and print errors.

Outstanding Colour across Applications In demanding print environments, accurate and consistent colour is critical. Integrated Fiery colour management tools provide superior colour control out of the box. Transparencies, drop shadows, and other effects are rendered precisely every time.

	BP-PE10 external server	BP-PE11 embedded server
Memory	8 GB DDR4, 1 TB HDD, 240/256 GB SSD	8GB DDR4, 500 GB HDD
Command WorkStation	Operated via MFP touchscreen and remote PC	Operated via remote PC
VDP Formats	PPML 3.0, PDF/VT-2, VPS, Fiery FreeForm	Fiery FreeForm
Adobe PDF Print Engine	Standard	Option
Fiery Compose	Option	Option
Fiery Impose	Option	Option
Graphics Arts Pro Package	Option	–

Sharp–Fiery Compatibility

Prints with Sharp Printer Driver When the MFP is equipped with a Fiery print server, it can accept jobs from both the Sharp printer driver and the Fiery printer driver. You might choose to use the Sharp printer driver for standard text documents and the Fiery printer driver for graphic-rich documents.

Two-Way Sharing of Paper Settings You need to register your paper settings only once—the settings on the Fiery server are automatically reflected on the Sharp MFP, and vice versa.

Sharp MFP   Fiery server
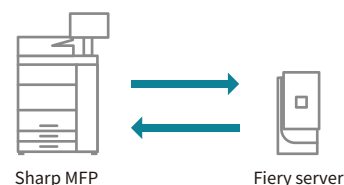
SECURITY

The MFP has multiple levels of security to keep the device—and your precious data—secure.

System and Data Protection

BIOS Firmware Security When booting up, the MFP checks for any anomalies in the BIOS firmware. If it finds a problem, it aborts the startup. If there are other firmware-related issues, the MFP will attempt recovery to protect the system.

Virus Detection* Using the Bitdefender scan engine, the MFP defends against virus attacks on itself and connected devices. It scans for viruses and prevents the MFP from transmitting them to other devices like laptops and PCs.

*Requires optional BP-VD10.

Data Encryption and Automatic Erasure* Job data is encrypted before being saved to the MFP's internal storage. Once the data is output or sent, it is automatically erased.

*Contact a Sharp customer representative for details on activating this function.

Document Control* This function prevents unauthorised use of confidential documents by embedding copy prevention data in them.

*Requires optional BP-FR12U. May not work with certain types of paper, documents (such as those with a lot of photos), or MFP settings.

Personal Information Erasure Retained personal information and other data can be erased when it's time to replace the MFP, preventing the leakage of confidential information.

Network Security and Access Control

Server Authentication The MFP supports external server authentication functions such as LDAP and Active Directory. With centralised management of multiple user credentials, system administrators can keep track of multiple MFP usage.

Active Directory By linking the MFP with Active Directory, users can access cloud services and network folders via the MFP by logging in with their authentication information. Beside the convenience of this single sign-on for users, system administrators can maintain a high level of security.
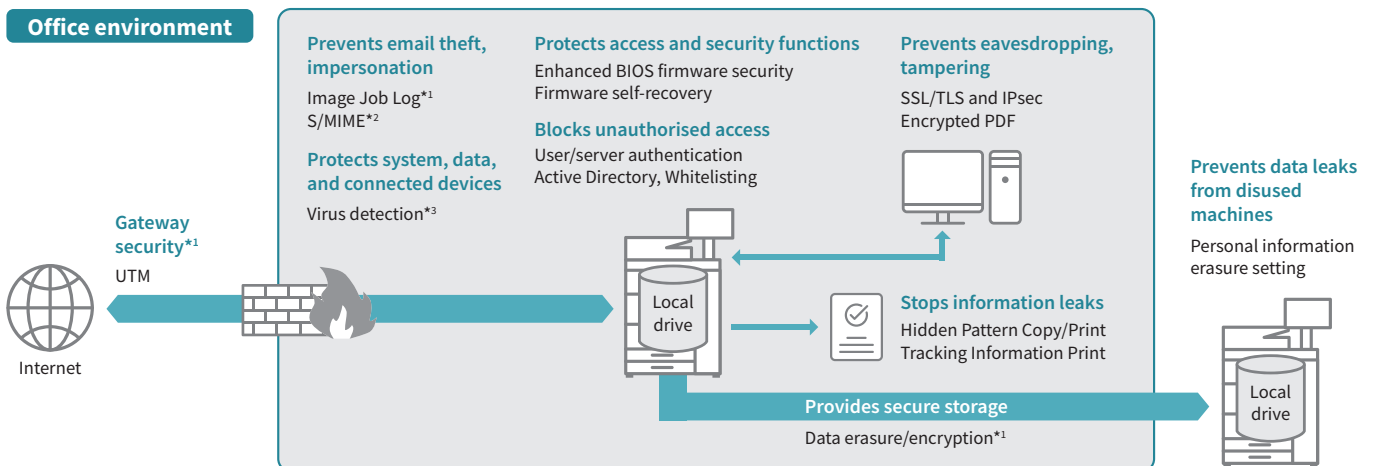
Whitelisting This function protects the MFP from fraudulent programs trying to access the file system and obtain information.

Image Job Log* This function creates and externally stores an image file (PDF) and a log file (XML) for each job. This helps identify unauthorised use of the MFP.

*Contact a Sharp customer representative for details on activating this function.

S/MIME* The MFP supports email encryption and digital signature. Sending emails in encrypted format keeps data from leaking. It also prevents someone from masquerading as the sender or altering the content of an email.

*Only when emailing scanned data.

Office environment

Prevents email theft, impersonation
Image Job Log*1
S/MIME*2

Protects system, data, and connected devices
Virus detection*3

Protects access and security functions
Enhanced BIOS firmware security
Firmware self-recovery

Blocks unauthorised access
User/server authentication
Active Directory, Whitelisting

Prevents eavesdropping, tampering
SSL/TLS and IPsec
Encrypted PDF

Gateway security*1
UTM

Internet

Local drive

Stops information leaks
Hidden Pattern Copy/Print
Tracking Information Print

Prevents data leaks from disused machines
Personal information erasure setting

Local drive

Provides secure storage
Data erasure/encryption*1

*1: Contact a Sharp customer representative for details. *2: Only when emailing scanned data. *3: Requires optional BP-VD10.

HIGH PRODUCTIVITY

When you need to print a business proposal or strategy paper right now, this MFP gets the job done fast.

Super-Efficient Output

The MFP delivers a fast output of 80/70 ppm* in colour and 80/75 ppm* in B/W—even for paper as thick as 220 g/m^2. And if toner runs out during a print job, the MFP continues printing your documents while you change the toner cartridge.

*A4 (8 $\frac{1}{2}$" x 11"), long-edge feeding

| COLOUR B/W	COLOUR	B/W
80 PPM	**70** PPM	**75** PPM

BP-90C80 —— —— BP-90C70 ——
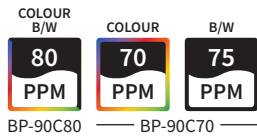
Large Paper Capacity

While the MFP holds 3,100 sheets of paper, this standard capacity can be expanded to meet the needs of high-volume jobs. Adding an optional 500-sheet Multi Bypass Tray and two 5,000-sheet (2,500 × 2) Large Capacity Trays boosts capacity to 13,500 sheets and enables a maximum 9-way automatic paper feed. And when a tray runs out of paper, the Auto Tray Switching function automatically switches to another tray with the same-sized paper.

Curl Correction

For reliable output of two-sided copies and prints, the optional Curl Correction Unit uses top and bottom rollers to apply pressure to convex and concave curls. This prevents paper from warping before it goes to the finisher.

Pressure
Convex curl
Concave curl
Pressure
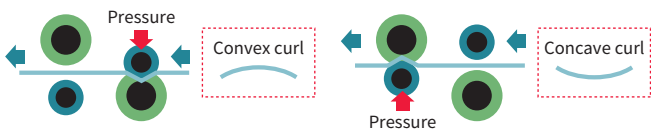
Triple Air-Feed System

The Triple Air-Feed System on the optional 5,000-sheet MX-LC13 N Large Capacity Trays reliably separates and feeds in paper to facilitate jam-free operation and minimise downtime. Capable of supporting a wide range of paper types, this system employs air-feed technology and three precisely directed air flows for maximum reliability and proper paper handling.

Suction
Sheet separation
Assistive air

(Conceptual image)
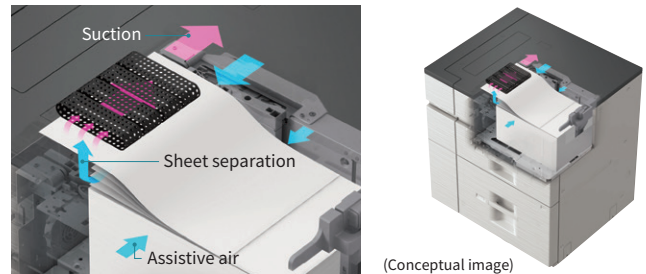
Multi-Feed Detection System

A precision-engineered Multi-Feed Detection System employs ultrasonic technology and separation rollers for double-fed paper to detect and prevent misfeeds from the paper feed section for maximum uptime.

Link to Cloud Services*

The MFP connects with cloud services directly from its control panel, letting you upload scanned data to—or print directly from—any of them. Once you log in to the MFP, its single sign-on feature allows you to quickly access multiple software services without having to sign in to each one separately. You can also download and install apps on your MFP via Sharp's Application Portal. App updates are easily recognisable, so you'll always be up-to-date with the latest services.

*In some countries/regions, optional equipment is required.

Smart Duplex Single Pass Feeder

The MFP features a highly efficient DSPF (duplex single pass feeder) that scans both pages of two-sided documents in one pass—in batches of up to 300 sheets. With scanning speeds of up to 140 opm* (one-sided) or 280 opm* (two-sided), the MFP is quick to finish even large jobs. The DSPF has smart document-feeding features that let you work more efficiently, along with other handy features that help keep your documents confidential.

*Originals per minute; when feeding A4 (8 $\frac{1}{2}$" × 11") sheets

LED Signal (ready to scan)
This LED signals that your document is placed correctly and is ready to scan.

Multi-Feed Detection
The DSPF detects when two or more sheets are fed at once and stops automatically.

Skewed-Sheet Detection
Sensors detect sheets that are not fed in straight—for example, a loose page of a corner-stapled document. If this happens, the DSPF stops automatically.

(Conceptual image)

LED Alert (document retrieval)
This LED lights up and reminds you to retrieve your document after scanning.

See-Through Tray
Part of the DSPF tray is see-through, making it easier to see your scanned documents.

ENVIRONMENTALLY FRIENDLY

Sharp's proven environmental know-how and state-of-the-art technologies make this MFP an eco-friendly office solution.

ENERGY STAR®

This MFP conforms to the ENERGY STAR programme—an international system that identifies energy-efficient products. It incorporates the Mycrostoner Crystal 2 toner, which fuses at low temperatures to save energy. Thanks to this and other energy-saving features, the MFP achieves one of the industry's lowest levels of production energy*.

*Production energy as estimated under the ENERGY STAR programme version 3.2.

Blue Angel Certified

This Blue Angel-certified MFP is durable and energy-efficient, produces minimal emissions, and incorporates a duplex unit for double-sided printing. To be Blue Angel-certified, a product's design must comply with strict requirements regarding the selection and recycling of materials.

PRODUCT LINEUP

BP-90C80/90C70

A3 Colour MFP

COLOUR B/W	COLOUR	B/W				
80 PPM	70 PPM	75 PPM	280 OPM	15.4"	13500 sheets	2400 dpi

BP-90C80 ——— BP-90C70 ———

DSPF | **Adobe PS** | **OCR** | **Office Direct Print** | **Compact PDF** | **Sharp OSA**[1] | **Cloud**[1] | **Business Card Feeder**

Basic Specifications / Notable Functions

Functions available

XX PPM Maximum engine speed[2] (ppm: pages per minute)	**XX OPM** Maximum scan speed[3] (opm: originals per minute)	**XX** Size of LCD control panel	**XX sheets** Maximum paper capacity (80 g/m²)
XX dpi Writing resolution	**DSPF** Duplex single pass feeder	**Adobe PS** Adobe PostScript 3	**OCR** Optical character recognition
Office Direct Print Prints common Microsoft Office files without using a PC[4]	**Compact PDF** Converts scanned documents into compact PDF files	**Sharp OSA** Sharp Open Systems Architecture	**Cloud** Enables connection to cloud services
Business Card Feeder Automatically feeds in and scans business cards via the document feeder			

[1]: In some countries/regions, optional equipment is required. [2]: A4 (8 $\frac{1}{2}$" x 11"), long-edge feeding. [3]: When feeding A4 (8 $\frac{1}{2}$" x 11") sheets. [4]: This function is enabled via Qualcomm® DirectOffice™ technology.

- Design and specifications are subject to change without prior notice.
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