SCREEN

CREATING A FUTURE IN PRINT

# PlateRite FX N Series

## Flexo/Letterpress CtP







EQUIOS ART & UX

# CtP Processing Delivers Consistent Color Reproduction and Greater Efficiency

**The PlateRite FX N series are high-quality, easy to use, reliable CtP recorders that offer optimal flexo/letterpress plate output for printing and prepress companies. They can image the black mask layer of photopolymer plates directly, thereby eliminating the need for film and other intermediate processing.**

**These systems can also be equipped with inline UV LEDs,* significantly reducing the manual operations between imaging and main exposure. This results in greater efficiency, as well as more consistent output quality for photopolymer plates. What's more, the superior halftone dot reproduction ensures consistently high-quality printing even in the highlight and shadow areas.**

**The PlateRite FX1524N/FX1200N is designed for a wide range of uses, including the production of labels, flexible packaging, cartons, and corrugated packaging.**

**The PlateRite FX870N-S/FX870N-E is the ideal flexo/letterpress CtP recorder for printing companies that already possess letterpress printing presses but want higher quality output, as well as for companies looking to improve the quality of the labels output from their existing letterpress printing presses, offset label printing presses, or flexo combination printing presses.**

**Option: In their standard configuration, all PlateRite FX N series models support a maximum output resolution of 4,800 dpi.*

*High Quality*

*Easy Operation*

*Superior Workflow*

*High-end Screening*

*Friendlier to the environment*



## PlateRite FX1524N
## PlateRite FX1200N




## PlateRite FX870N-S
## PlateRite FX870N-E




**Wide Web** | **Middle Web** | **Narrow Web**

### Compatible with diverse media

- *Letterpress digital plates*
- *Flexo digital plates*
- *Dry film media*
- *Thermal offset plates (option)*
- *Steel based plates (option)*












# High Quality

## Consistent plate quality

The PlateRite FX N series eliminate many of the problems associated with platemaking using film, including image unevenness, problems caused by dust, and UV scattering. They also solve problems inherent in going from film to plate, such as misalignment of the film during platemaking and registration errors arising from stretching of the film. This helps to ensure consistent plate quality and reduces wastage with fewer plates having to be re-output due to errors.

## Proven technology

The light source used by the PlateRite FX N series, a multi-channel laser diode, is the same type of laser as those used in SCREEN's traditional offset CtP recorders. This proven, reliable, high-powered laser images the black mask layer of photopolymer plates. In addition to enabling sharp imaging, the PlateRite FX N series' light source is both durable and inexpensive to operate.

## Superior reproduction of fine lines and white knockout text

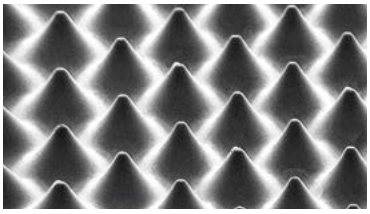
The CtP platemaking process eliminates scattering of the UV light during the UV main exposure, and thus sharp relief patterns can be created. This ensures superior reproduction of fine lines and white knockout text.

## Outstanding ink density in solid areas

Super Fine Cell improves transfer issues that can occur in flexo printing. This newly developed function forms minute holes in the plate surface that are used to retain ink. These holes enable a higher volume of ink to be transferred.

## High-quality plate output

Unlike traditional printing plates, plates used in the CtP process have stable output for both highlight relief patterns and shadow cutouts, which reproduces the minimum and maximum halftone dots with high accuracy. This dramatically increases quality from the highlights to the shadows, across a wide range of image densities.



Enlarged view of a 1% relief pattern at 175 lpi

## 4,800 dpi resolution for high-quality output

The PlateRite FX N series offer a maximum output resolution of 4,800 dpi. This high resolution significantly reduces the incidence of problems common in low-resolution output, such as jaggies in diagonal lines and curves, and dramatically improves the repeatability of fine line reproduction. 4,800 dpi output also delivers smooth gradations, and almost completely eliminates unevenness, even in the highlight areas.

Enlargement of the 1-point characters



4,800 dpi | 2,400 dpi

# More economical and Kinder to the environment

## Energy saving design cuts running costs

All of our systems undergo a thorough environmental assessment as part of the design review during product development. The PlateRite FX N series is the same. Each new stage of development places top priority on reducing energy use and improving safety and environmental friendliness.

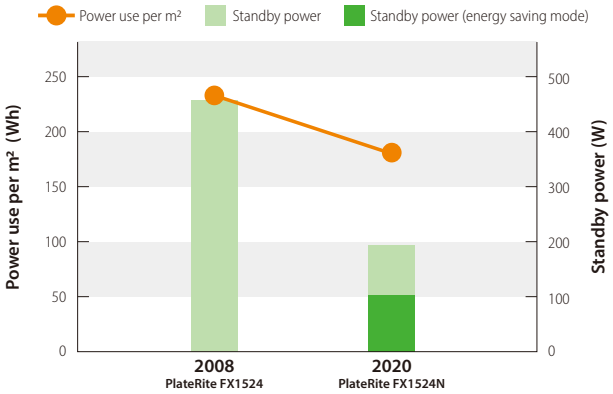
- 22% decrease in power use during operation*
- Minimal power use while idle in energy saving mode
- 77% drop in power use while on standby*

** Actual power consumption depends on the usage environment and other external factors. As a result, the above values may not always be attainable.*

*These values represent a comparison between the PlateRite FX1524N and PlateRite FX1524 series.*

*Exposure is performed using a setting of 2,400 dpi.*

**Improvements in power use for PlateRite FX1524 series (in-house testing)**



## Easy Operation

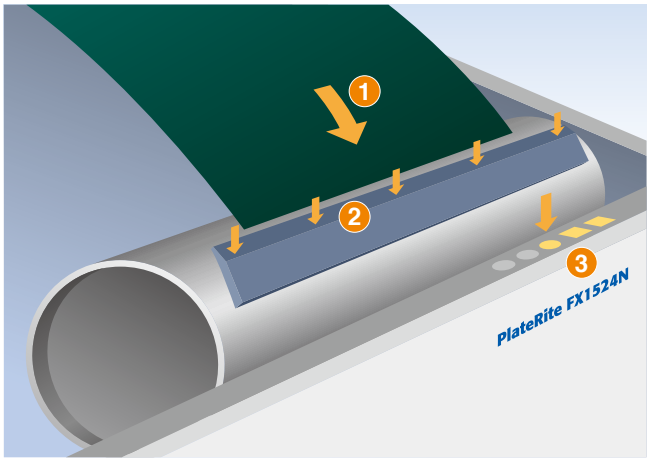
### PlateRite FX1524N, FX1200N, FX870N-S, FX870N-E

When using plates with a height of 1,067 mm (42.0"), both the leading and trailing edges can be fixed with clamps to simplify operation. The plates are automatically loaded and then accurately positioned simply by pushing a button.

It is also possible to mount the plates manually. This combination of methods ensures they are optimally positioned according to their size.

1. The plate is positioned in the upper section of the press and its leading edge is then inserted into the clamps.
2. The plate is fixed by the clamps.
3. Pressing the operation button rotates the drum and the plate is suctioned as it is wound.

*Manual winding is required with the PlateRite FX870N series.*




## Option

### Main exposure function using inline UV LEDs

Main exposure is performed by the UV LEDs installed in the system without assistance from the operator.

- **Main exposure begins right after imaging and the two operations run in parallel, creating greater efficiency.**
- **The operator does not perform any manual operations between the imaging and main exposure processes, meaning no plate errors can occur in the workflow.**
- **UV LEDs offer much more stable output during exposure than UV lamps.**

#### For PlateRite FX1524N, FX1200N

Systems equipped with UV LEDs have 170 mm larger depth compared to the standard specification.

#### For PlateRite FX870N-S/FX870N-E

Systems equipped with UV LEDs have 135 mm larger depth compared to the standard specification.



### Magnetic drum specification (factory option) (PlateRite FX870N-S, FX870N-E)

This function uses magnetic force to securely attach steel based photopolymer letterpress plates, used for printing on cans and tubes, to the drum.

- **Insertion guides in the upper section are used to ensure quick and easy mounting of photopolymer letterpress plates.**

### Thermal offset plate

This option handles thermal offset plates for high-end presses.

- **Insertion guides in the upper section are used to ensure quick and easy mounting of thermal offset plates.**
- **A wide range of plate sizes including small-sized plates are supported.**
- **High-speed imaging is available for thermal CtP plates.**



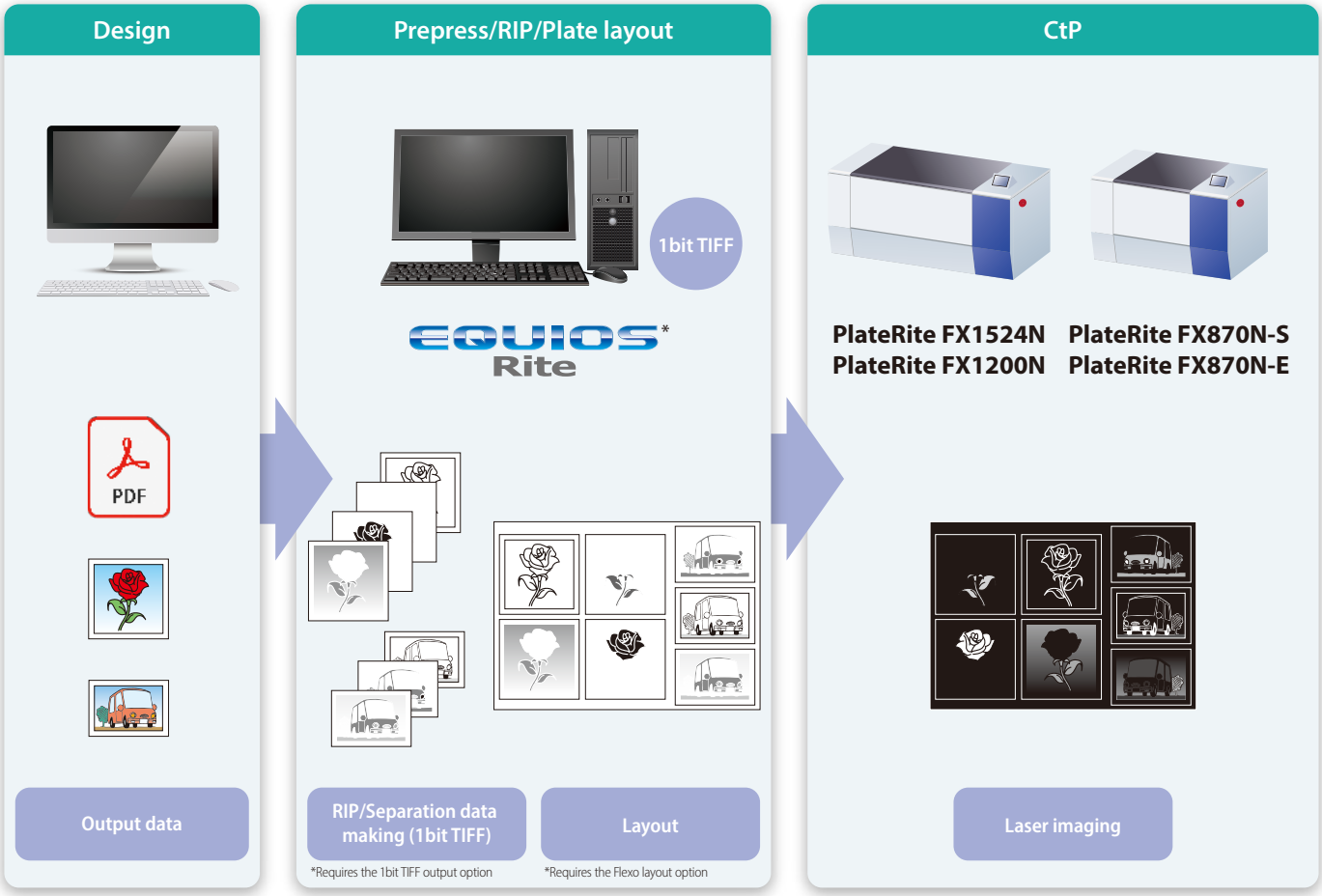
# Superior Workflow

## Advanced, fully digital processing for higher efficiency

### EQUIOS Rite

EQUIOS PT-R includes EQUIOS Center, enabling integrated management of all EQUIOS workflows, and Adobe® PDF Print Engine. EQUIOS Rite is an entry-level model which includes all key functions required for the top-quality flexo/letterpress CtP output.

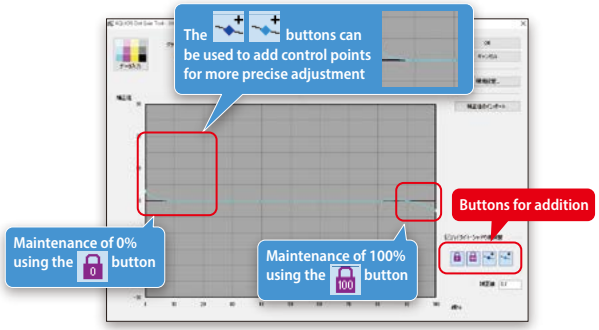
EQUIOS Rite features automatic plate layout, ensuring optimal use of all area on flexo and letterpress plates. Each step from the creation of separated 1 bit TIFF data to automatic plate layout can now be performed in one continuous flow.




Once separations for the output data and 1bit TIFF files are created, multiple jobs can be laid out on a single plate. This ensures highly efficient output to CtP systems.

### Easier dot gain adjustment for flexo printing NEW

The dot gain curve can be seen clearly when bumping up values, enabling more precise adjustment. This allows subtle expression of color tones, especially in highlight and shadow areas.



# High-end Screening

## AM screening

***For flexo and letterpress printing***

AM screening, which is the form of screening used most commonly in the printing industry today, creates halftone dots in a certain distance with regular pattern. Varying the size of the halftone dots creates areas of higher and lower color density. AM screening results in a highly consistent color appearance, and is easy to print.

## Flexo Dot

***Flexo printing***

Flexo Dot, which is designed for flexo printing, increases the minimum dot size and applies a reinforcing pattern to the basic halftone dot shape. This results in the creation of more consistent relief patterns in the highlight areas.

***Letterpress printing***

With traditional AM halftone dots, the reproduction of extreme highlights is inconsistent. In traditional halftone dots, the minimum halftone dot size is one dot, but with Flexo Dot, highlight areas feature a somewhat larger minimum halftone dot size consisting of several dots, which makes it possible to create consistent dots in the extreme highlight areas.

For both flexo and letterpress printing, the minimum halftone dot shape can be selected from various shapes for each screen ruling, depending on the platemaking and printing environments, to ensure optimal highlight printing.

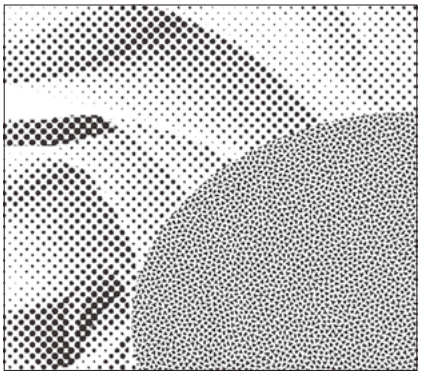
## Spekta 2

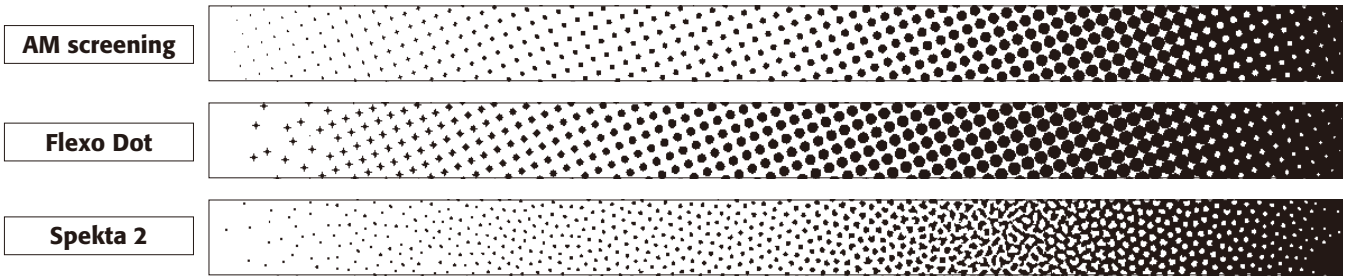
***Offset and letterpress printing***

Spekta 2 is a next-generation form of hybrid AM/FM screening that is designed to make printing easier. Not only does it solve the problems of moiré and broken lines that sometimes occur when AM screening is used, but also increases the vibrancy of the colors being printed. Spekta 2 makes added-value label printing a reality.

## Multi-screening (option)

Multi-screening makes it possible to use the optimal type of screening for each object being printed, enabling the mixing of different types of screening on a single page. This is particularly useful when printing pages that contain multiple elements such as images, text, keylines, patterned backgrounds, tints, decorative lines, outlined text, and gradations. Multi-screening prevents moiré and broken lines, and contributes to a significant increase in finished quality.



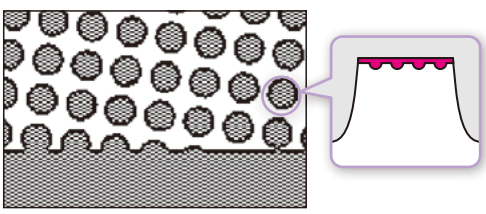



## Super Fine Cell (EQUIOS option) NEW

Super Fine Cell is a proprietary pattern function we developed to increase ink density and improve transfer issues that can occur in flexo printing. It forms minute holes in the plate surface that are used to retain ink, enabling a higher volume to be transferred. This function is particularly effective for increasing ink density in solid areas. The optimal pattern for any application can be selected from a wide variety of choices.



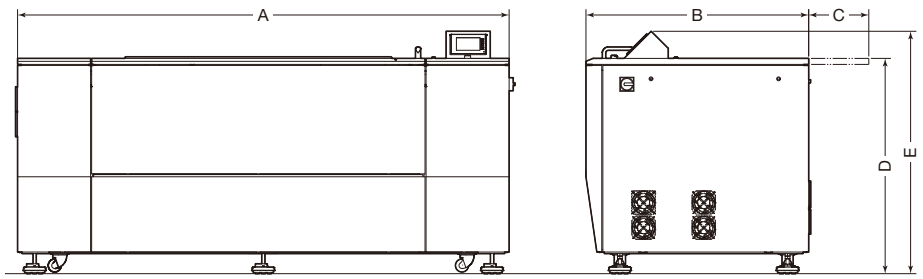
Without Super Fine Cell pattern



With Super Fine Cell pattern

Note: When adopting any type of screening dot, please ensure prior testing and quality verification according to each plate type.

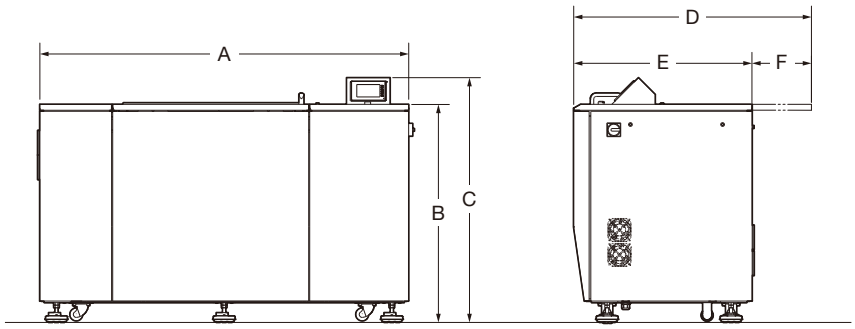
## PlateRite FX1524N and FX1200N space requirements




### Dimensions

| | A | B | C | D | E |
|---|---|---|---|---|---|
| mm | 2,450 | 1,110 | 300 | 1,075 | 1,210 |
| in. | 96.5 | 43.8 | 11.9 | 42.4 | 47.7 |

## PlateRite FX870N-S and FX870N-E space requirements




### Dimensions

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| mm | 1,870 | 1,105 | 1,240 | 1,205 | 905 | 300 |
| in. | 73.7 | 43.6 | 48.9 | 47.5 | 35.7 | 11.9 |

## PlateRite FX N series specifications

| Product name | PlateRite FX1524N | PlateRite FX1200N | PlateRite FX870N-S | PlateRite FX870N-E |
|---|---|---|---|---|
| Model name | PT-R FX1524N | PT-R FX1200N | PT-R FX870N-S | PT-R FX870N-E |
| Media | Letterpress digital plates, flexo digital plates, dry films, thermal offset plates (option) | | | |
| Media sizes*1 | Maximum 1,524 × 1,067 mm (60.0" × 42.1")<br>Minimum 200 × 100 mm (7.9" × 4.0") | Maximum 1,200 × 1,067 mm (47.3" × 42.1")<br>Minimum 200 × 100 mm (7.9" × 4.0") | Maximum 870 × 762 mm (34.3" × 30.0")<br>Minimum 100 × 100 mm (4.0" × 4.0") | |
| Media thickness*1 | 0.10 to 6.35 mm | | 0.10 to 2.84 mm | |
| Resolution | 2,400 dpi, 2,540 dpi, 4,800 dpi*2 | | | |
| Productivity | 4 to 6 $m^2$/h (6,200 to 9,300 sq in/h)*3 | | | 2 to 3 $m^2$/h (3,100 to 4,650 sq in/h)*3 |
| Options | Upgrade to FX1524N, thermal offset plate option*4, inline UV LED exposure function | | Thermal offset plate option*5, inline UV LED exposure function, magnetic drum specification*6 | |
| Dimensions (W × H × D) | Main unit: 2,450 × 1,210 × 1,110 mm (96.5" × 47.7" × 43.8")*7<br>Air filtering unit: 530 × 840 × 670 mm (20.9" × 33.1" × 26.4")<br>Blower unit: 685 × 550 × 670 mm (27.0" × 21.7" × 26.4")<br>Chiller unit: 350 × 715 × 660 mm (13.8" × 28.2" × 26.0") (UV LED option) | | Main unit: 1,870 × 1,240 × 905 mm (73.7" × 48.9" × 35.7")*8<br>Air filtering unit: 530 × 840 × 670 mm (20.9" × 33.1" × 26.4")<br>Chiller unit: 350 × 715 × 660 mm (13.8" × 28.2" × 26.0") (UV LED option) | |
| Weight | Main unit: 1,120 kg (2,464 lb)<br>Air filtering unit: 90 kg (198 lb)<br>Blower unit: 50 kg (110 lb)<br>Chiller unit: 63 kg (138.6 lb) (UV LED option) | | Main unit: 680 kg (1,499.2 lb)<br>Air filtering unit: 90 kg (198.5 lb) | |
| Power requirements | Main unit: Single phase 200 to 240 V, 20 A, 4 kW<br>Air filtering unit: Single phase 200 to 240 V, 16 A, 3.2 kW<br>Blower unit: Single phase 200 to 240 V, 10 A, 1.2 kW<br>Chiller unit: Single phase 200 to 240 V, 3 A, 0.6 kW (UV LED option) | | Main unit: Single phase 200 to 240 V, 20 A, 4 kW<br>Air filtering unit: Single phase 200 to 240 V, 16 A, 3.2 kW<br>Chiller unit: Single phase 200 to 240 V, 3 A, 0.6 kW (UV LED option) | |
| Environment | Temperature: 21 to 25°C (69.8 to 77°F) [recommended], Relative humidity: 40 to 70% (no condensation) | | | |

*1 Limitations may exist depending on the plate material. *2 Note that 4,800 dpi screening is not possible for thermal offset plates. *3 Productivity may vary depending on the media sensitivity.
*4 Supported thermal offset plate sizes range from a maximum of 1,165 × 950 mm (45.9" × 37.5") to a minimum of 320 × 100 mm (12.6" × 4.0").
*5 Supported thermal offset plate sizes range from a maximum of 870 × 762 mm (34.3" × 30.0") to a minimum of 200 × 100 mm (7.9" × 4.0"). *6 This is available as a factory option. It is for steel based plates.
*7 The depth of systems equipped with UV LEDs is 170 mm longer than the standard specifications. *8 The depth of systems equipped with UV LEDs is 135 mm longer than the standard specifications.


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