Mimaki JV150, JV300

This document bridges the gap between the Fiery XF documentation and the Mimaki JV150 and JV300 documentation. Refer to the Installation section before you connect the printer to a computer.

The Operation section has information on profile generation and everyday use. Please refer also to the Operation Manual.

Installation

For a JV150 or JV300 printer, select the Fiery XF driver that matches the ink configuration in the printer:

Fiery XF Model	Description	Supported
Mimaki JV150-130 Sublimation BMYK Mimaki JV150-160 Sublimation BMYK Mimaki JV300-130 Sublimation BMYK Mimaki JV300-160 Sublimation BMYK	Double BMYK set for higher speed and uninterruptible ink supply B: Blue Ink type: Sublimation dye ink (Sb)	Yes
Mimaki JV150-130 Sublimation BMYKbm Mimaki JV150-160 Sublimation BMYKbm Mimaki JV300-130 Sublimation BMYKbm Mimaki JV300-160 Sublimation BMYKbm	BMYKbm set for finest detail and less grain B: Blue, b: Light blue Ink type: Sublimation dye ink (Sb)	Yes
Mimaki JV150-130 Solvent CMYK Mimaki JV150-160 Solvent CMYK Mimaki JV300-130 Solvent CMYK Mimaki JV300-160 Solvent CMYK	Double CMYK set for higher speed and uninterruptible ink supply Ink type: Solvent ink (SS/BS/ES)	Yes
Mimaki JV150-130 Solvent CMYKcm Mimaki JV150-160 Solvent CMYKcm	CMYKcm Ink type: Solvent ink (SS/ES)	Yes
Mimaki JV300-130 Solvent CMYKcmW Mimaki JV300-160 Solvent CMYKcmW	CMYKcm plus White Ink type: Solvent ink (SS/ES)	Yes
Mimaki CJV150-130 Solvent CMYKOcmk Mimaki CJV150-160 Solvent CMYKOcmk Mimaki CJV300-130 Solvent CMYKOcmk Mimaki CJV300-160 Solvent CMYKOcmk	CMYK, Orange + Light cmk Ink type: Solvent ink (SS)	Yes

From the computer viewpoint, the Mimaki JV150/JV300 is a special USB device. The latest driver is downloadable from http://www.mimaki.com/product/inkjet/i-roll/jv300-series/download-driver.html.

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The Fiery XF drivers for Mimaki printers are available for Windows only. Macintosh OS X is not supported.

1 Follow the instructions in the Mimaki USB Driver Install Guide before you connect the printer. Mimaki USB Driver version 4.1.2 or later is recommended.

2 Install Fiery XF and the latest Fiery XF service pack that supports the Mimaki JV150/JV300 printer. The minimum requirement is Fiery XF 6.1.1. Orange is supported from Fiery XF 6.4.

3 To configure the Fiery XF output device:

- On the Device tab, go to the Information pane and select the Device type, e.g. "Mimaki JV300-160 Solvent CMYK".
- On the Device tab, go to the Connection pane. Under "Print via port", select the printer.

Operation

Settings

You can access the ink layers settings in Color Tools via the "Media type" setting.

You can set the number of passes in Color Tools via the "Print mode" setting.

You can select "Waveform" in Color Tools via the "Dot size" setting.

You can select a resolution in the range of 360x360 dpi to 1440x1440 dpi.

Note that ink consumption may be higher in higher resolutions.

Creating profiles

Always check the control panel settings – they may override the RIP settings or otherwise affect print quality.

Drying time and the overall ink consumption are extremely important, especially in fast print modes. Observe the following recommendations:

- If your printer has light inks, reduce the starting point of norm ink. Setting it to 1/2 of the Color Tools setting (e.g. from 38% to 19%) is a good start.
- When creating a profile, increase the black length and width.
- When printing a narrow image, you get considerably less ink drying time between passes than when printing a wide image. If your print speed is very fast or you are printing white, you should keep your printing width consistent:
  - In the Fiery XF output device setting, make sure that "Logical seek" is set to Off.
  - In the Fiery XF workflow setting, set the page alignment to right on the Layout pane.
  - When creating a media profile, the media width should correspond to the width used for production (not more, and not considerably less).

White printing

This section applies only to models with white ink.

Print speed and quality issues

For white printing, the print head is split into two bands - one band for process colors and one band for White ink. The print speed is much slower than for normal color printing.

White adds another 100% of ink. Although the print speed is slower, you can easily run into quality issues. Use as much of the media width as possible, and follow the hints given in the “Creating profiles” section above. In particular, make sure to keep the printing width consistent.

Linearization, media profiles

There is no specific linearization available for White. White ink simply uses its own linearization curve. As far as profiles are concerned, the printer is still a CMYK device. Five-channel profiles that include a mix of CMYK and White are not supported.

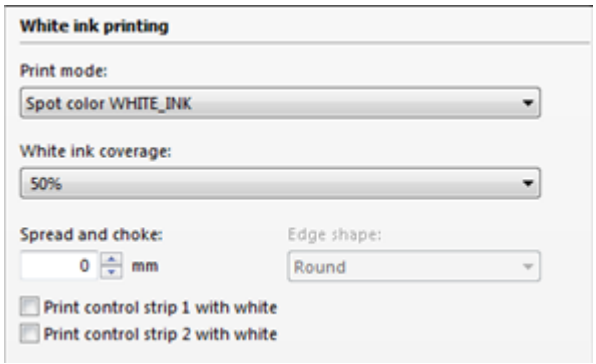
For white printing, always select the WF3 dot size for a feed resolution (Y) of less than 720 dpi.

Printer-specific separations

Separated file formats, e.g. PS, PDF, EPS, support spot colors. For Fiery XF, the spot color name WHITE_INK has a special meaning. It is a pre-defined printer-specific internal spot color. During job processing, it goes directly to the printer, by-passing color management. It is possible to specify it directly in the document. Alternatively, you can use Color Editor to set up an alias, by mapping one of the job’s separations to WHITE_INK. You can then select the .*cxf file in the color settings of the job.

Print setting for White ink

You can find the settings for White ink on the Special Printer Settings pane for the output device (System Manager) or for the job (Job Explorer).



Print mode

There are six ways to print White:

Name	Meaning
Spot color WHITE_INK	The spot color of this name or alias from a separated document prints White. This is the default mode.
Fixed ink amount on printed areas	Every pixel which does not have CMYK = 0,0,0,0 on the printer side adds White
Bounding box	Every pixel in the image rectangle adds White. This is the recommended mode during linearization and profile creation
White_INVERSE	Same as “Spot color WHITE_INK” but channel inversed
Ink chroma map	Reduces the amount of White for darker colors.
Off	White off, even when it comes from the separated document

The options “Fixed ink amount on printed areas” and “Bounding box” work regardless of whether the file is separated or not.

Printing order

Since White is opaque, the printing order is important:

- “Color on White” uses White as the foundation, then prints the other colors on top. This setting is for printing on dark or metallic materials.
- “White on Color” prints White on top of other colors. This is for printing transparencies from the back.
- “White only” prints White, but no other color channels.
- “Color White Color” prints three layers with white in the middle.

White ink coverage

White ink coverage is an option that configures the amount of white ink relative to black. The available settings are 50%, 63%, 80%, 100%, 125%, 160%, 200%.

Option support

Media length correction

In Fiery XF you enter the target length and the actual length. The MEDIA COMP value is then

(target_length / actual_length -1) * 10000

This formula gives an exact MEDIA COMP value, although the corrected media length may be slightly inaccurate. For example, if you enter a target length of 100.60 cm and an actual length of 100.00 cm, the MEDIA COMP value will be +60.

Recommendation

Resolution (dpi)	Ink Type			
	SS21	BS3/BS4	ES3	Sb53
360x360	WF4	WF4	WF4	WF4
540x360	WF4	WF4	WF4	WF4
540x720	WF6	WF3	WF5	WF3
720x720	WF6	WF3	WF5	WF5
720x1080	WF5	WF5	WF3	WF5
720x1440	WF5	WF5	WF3	WF5
1440x1440	WF5	WF5	WF3	WF5

Known issues

- The “Print End Dry Time” setting may not work correctly for printers with firmware versions earlier than v1.40.
- The Fiery XF driver may not work correctly for Mimaki USB driver versions earlier than v4.1.2.