Mutoh VJ-1617H

This document bridges the gap between the Fiery XF documentation and the Mutoh VJ-1617H documentation.

Refer to the Installation section before you connect the printer to a computer.

The Operation section has information for profile generation and everyday use. Please refer also to the documentation shipped with your printer, which you can also download from:

https://www.mutoh.com/products/valuejet-1617h/

General Settings

Installation

The printer driver supports the printers: Mutoh ValueJet 1617H

Environment requirements are as follows: The driver is available for Windows and Mac OS X.

Products based on Fiery XF technology: EFI Fiery XF 5.1

Operation

Color Tools settings

The "Resolution", "Print mode", and "Dot size" settings are linked. Each time you select a different resolution, the appropriate print mode and are dot size are displayed.

- Color modes and ink types

  - Color mode: KCMY only

  - Ink type: Mutoh Multipurpose Ink

- Compatibility and heaters

  The Mutoh VJ-1617H printer is not compatible with any other printer. It does not support heaters.

- Resolutions

  Below is a table of the resolutions currently supported by the Mutoh VJ-1617H printer.

Main scan resolution (dpi)	Line feed resolution (dpi)
720.0	1440.0
720.0	1080.0
720.0	720.0
720.0	540.0
720.0	360.0
540.0	1440.0
540.0	1080.0
540.0	720.0
540.0	360.0
360.0	720.0
360.0	540.0
360.0	360.0
1080.0	1440.0
1080.0	1080.0
1080.0	720.0
1440.0	1440.0
1440.0	1080.0
1440.0	720.0

- Print quality

  Below is a table of the available print qualities and their corresponding supported resolutions.

  Selecting a print quality in Color Tools results in using the corresponding number of interlace passes. Interlace passes is the number of times the print head moves to print the same line. A higher number of passes produces a better-quality print but takes longer to print.

Quality name	Interlace passes	Main scan resolution (dpi)	Line feed resolution (dpi)
Custom8	6	720.0	1080.0
Custom9	4	720.0	720.0
Custom18	6	720.0	540.0
Custom 1	16	1440.0	1440.0
Custom 2	12	1440.0	1080.0
Custom 3	8	1440.0	720.0

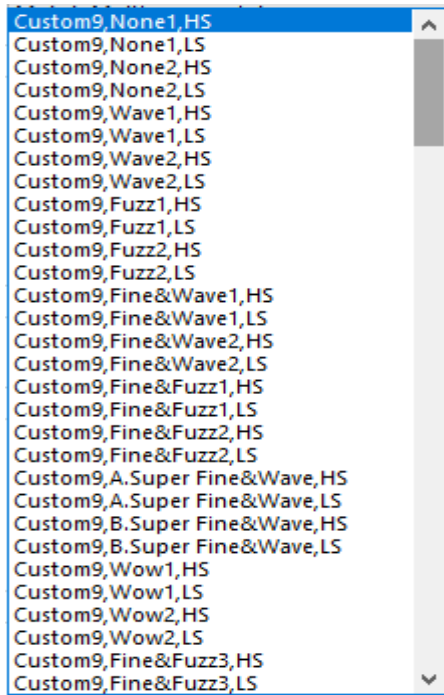| Quality name	Interlace passes	Main scan resolution (dpi)	Line feed resolution (dpi)
Custom 4	12	1080.0	1440.0
Custom 5	9	1080.0	1080.0
Custom 6	6	1080.0	720.0
Custom 7	8	720.0	1440.0
Custom 7	16	720.0	1440.0
Custom 8	6	720.0	1080.0
Custom 9	4	720.0	720.0
Custom10	2	720.0	360.0
Custom11	12	540.0	1440.0
Custom12	9	540.0	1080.0
Custom13	6	540.0	720.0
Custom14	3	540.0	360.0
Custom15	2	360.0	720.0
Custom16	3	360.0	540.0
Custom17	1	360.0	360.0
Quality 1	16	1440.0	1440.0
Quality 2	16	1440.0	1440.0
Graphics 1	8	720.0	1440.0
Graphics 2	8	720.0	1440.0
Banner 1	6	720.0	1080.0
Banner 1	4	720.0	720.0

- Weaving

Weaving is a technique used in digital printing to reduce visual bands resulting from the proximity of adjacent print nozzles. Horizontal rows are printed out of order and "weaved" together with subsequent passes of the print head.

Weaving is mixed with print quality to give all possible weaving effects and all possible print quality combinations in the print mode option. The weaving types for a particular print quality like "Custom9" can be seen in the image below.

The list shows some possible weaving effects that the "Custom9" print mode supports for a resolution of 720 x 720 dpi. The first value is the print quality, which gives the number of passes. The value after the first comma is the name of the weaving effect, and the value after the second comma shows the speed of the print mode. There are two speeds: HS (high speed) and LS (low speed). In general, high speed is two times as fast as low speed.

The quality of print varies also with the weaving. In the print modes shown below, the quality of weave increases from top to bottom as is suggested by the names themselves.

```
Custom9,None1,HS
Custom9,None1,LS
Custom9,None2,HS
Custom9,None2,LS
Custom9,Wave1,HS
Custom9,Wave1,LS
Custom9,Wave2,HS
Custom9,Wave2,LS
Custom9,Fuzz1,HS
Custom9,Fuzz1,LS
Custom9,Fuzz2,HS
Custom9,Fuzz2,LS
Custom9,Fine&Wave1,HS
Custom9,Fine&Wave1,LS
Custom9,Fine&Wave2,HS
Custom9,Fine&Wave2,LS
Custom9,Fine&Fuzz1,HS
Custom9,Fine&Fuzz1,LS
Custom9,Fine&Fuzz2,HS
Custom9,Fine&Fuzz2,LS
Custom9,A.Super Fine&Wave,HS
Custom9,A.Super Fine&Wave,LS
Custom9,B.Super Fine&Wave,HS
Custom9,B.Super Fine&Wave,LS
Custom9,Wow1,HS
Custom9,Wow1,LS
Custom9,Wow2,HS
Custom9,Wow2,LS
Custom9,Fine&Fuzz3,HS
Custom9,Fine&Fuzz3,LS
```

- Dot size:

  Dot size is made up of dot mass and dot type.

  The dot mass defines droplet volumes. Large mass means the largest possible droplet volume (in picoliter). The value in square parentheses is the weave form for that dot. Smaller mass gives a better output.

  The dot type defines dot shape. Possible dot types are Normal, Variable, Large, Medium, and Small. Normal, Large, Medium and Small are fixed-size dots, i.e. only one droplet size (in picoliters) is used to print the image. Selecting fixed size dots can reduce quality, especially in areas that have a mild gradient.

  Variable dot size uses 4 different droplet sizes. The RIP (the Fiery XF server) decides which dot size to use for each pixel of the image. Variable dot sizes generally give a better-quality output.

  Dot size: `Small Mass [VSD4], Normal/Fixed Dot`

Summary

Settings that result in a higher quality output will effectively reduce the overall final print speed. Below is a summary of the settings that can positively affect print quality:

- A high resolution produces a better-quality print than a low resolution.

- A high number of passes produces a better-quality print than a low number of passes.

- The better the weaving effect, the better the print quality. The weaving effect quality increases from top to bottom in the print mode list. Also, selecting a high-speed print mode prints two times faster than if you select a low-speed print mode. However, printing with a low speed print mode produces a better-quality print.

- Small mass dot sizes produce a better-quality print than middle mass or large mass. Selecting "Middle Mass" produces a better output than "Large Mass".

- Variable dot sizes produce a better-quality print than fixed dot sizes (Normal, Large, Medium, Small).