

Getting the Most Out of Your Printhead

The most sensitive consumable in your printer is your Printhead. With the ability to print a width of 8.77" the Printhead is comprised of more than 70,000 tiny, microscopic nozzles (**Figure 1**). Each of these nozzles distributes between 1-2 picoliters of ink with each fire. Keeping the Printhead clean and debris free is imperative to maintaining good print quality but more importantly being proactive and understanding what can affect your Printhead's quality of life should be deemed just as valuable.



Figure 1, Black horizontal lines mark the ink channels of the Printhead. These ink channels retain over 70,000 ink jet nozzles.

In the following service bulletin, the end user will be familiarized with some of the main factors that can affect the life expectancy of this Printhead:

- Print job type
- Environment & Media Cleanliness
- End User Preventative Maintenance

Print Job Type:

For the same label design, printing in landscape orientation will utilize more nozzles across the width of the Printhead and thus reduces firing per nozzle. By printing in landscape orientation, this will help circumvent the overuse of certain nozzle groups on the Printhead.

Environment & Media Cleanliness:

Paper dust from the label stock and remnants of dust left over from past print jobs located in the print engine must be kept to the minimum. These minute dust particles may clog the tiny Printhead nozzles leading to nozzle outages and render them unusable. Keeping the print engine clear of debris can be accomplished by using canned air to disperse accumulating debris. In addition to keeping your environment dust free, humidity can also play a factor in the overall printing process. The table below (**Table 1**), displays some of the environmental limits of the Memjet Printhead technology.

For additional support, call the Vivid Data Group Support Team at 1-855-848-4332 and select Option 2.



Environmental Specifications	
Environmental Operating Temperature	59°F - 95°F
Humidity	20% - 80% RH non-condensing
Storage Temperature	23°F - 113 °F

Table 1, Environmental Limits of the Memjet Printhead Technology

End User Preventative Maintenance:

- **Priming the Printhead:** Keeping the Printhead primed and lubricated is imperative to ensuring that print quality is not deterred in any way. The end user can prime the Printhead by launching the Toolbox software associated to the printer – and within the user interface menu there is a button labeled “Circulate Ink”. Circulating the ink multiple times will keep the Printhead lubricated and ensure that the Printhead does not dry out.
- **Cleaning the Printhead:** Routinely cleaning the Printhead will keep it free of debris and other artifacts that may be found on the media or within the print engine. The Printhead can be cleaned using the built in cleaning commands found in the printers Toolbox and or found in the printers Touch Screen.

If you notice that lines are running through your printed artwork (**Figure 3**), this may be attributed to nozzles on the Printhead being dried out. When these nozzle outages begin appearing the first method of troubleshooting should be to run either a Normal, Medium, or Extended clean. If after running these three cleaning processes does not resolve the issue take a damp microfiber cloth and wipe down the Printhead (**Figure 4**).



Figure 3, Printed Artwork Displaying a Nozzle Outage



Figure 4, With a dampened (Distilled Water) lint free cloth gently wipe down the ink channels.