How to Bleed Trapped Air from an Ink Filter

Since the original version of this bulletin we have concluded that bleeding the ink filters after every ink bag change is the best way to ensure that air does not accumulate in the ink lines. This preventative maintenance reduces the need for a service visit and also avoids the possible problem of ink dripping on the media during a print job.

The build-up of trapped air in an ink filters causes the corresponding 0.2 micron purge filter of the same color to eventually become clogged (the purge filters are located on top of the carriage and each one has a purge valve).

- Bleed air from an ink filter whenever an ink bag is removed from the ink bay or when a new ink filter is installed.

Note: Air in the ink filter can affect the vacuum and result in dripping ink and deteriorated image quality as a result of nozzle dropout. Therefore this procedure can be used as a strategy to avoid or to troubleshoot persistent nozzle dropout.

If any of the 0.2-micron purge filters shows signs of ink contamination you will need to place a service call to have them replaced. However, the preferred preventative maintenance method is to bleed the ink filters on a regular basis.

Procedure to Bleed Trapped Air

Safety Information: wear nitrile gloves and protective eyeglasses with side guards while performing this procedure.

To bleed an ink filter follow these steps for the selected ink color:

1. Close the ink purge valves of the three (or four) other colors, but leave open the valve of the target color. These valves are located on the top of the carriage and are color-coded (see Figure 1).
2. Press the release tab on the side and then pull out the ink bag coupler to disconnect the ink bag for the target color of the ink filter you will be bleeding. Leave the ink bag sitting in its holder for easy access later in Step 8.

3. Click on the ink status icon located in the top right corner of the Print Job Control screen of the printer software to monitor the ink status.

4. Open the maintenance station drawer.

5. Press the Purge button (switch 1 on the right) to initiate an ink purge. Repeat this step until the ink status window shows an Ink Low condition for the target color.
6. Press the Raise Carriage button (switch 2, middle) and then use the suction nozzle to remove any excess ink from the printhead that you purged.

7. Close the maintenance station drawer.

8. Remove the two screws that hold the ink filter enclosure cover in place (thumbscrews can be loosened by hand or use a Philips screwdriver if they are too tight).

Note: There is a difference in how the ink filters are set up based on printer model: 200/250 GT printers have ink filters with a white cap that must be removed to bleed the filter; 300/350 GT/XT and 550 GT printers use the same replacement filter but the white cap is removed on installation and replaced with a bleed tube that has a valve to make bleeding the air.
Bleeding 200/250 GT ink filters

I. Remove the ink filter for the target color from the metal retainer clips and invert it (be careful not to pinch or twist the ink lines).

Figure 6 Ink Filters on a 200/250 GT printer

II. Use a lint-free cloth to catch any ink, and place it below the filter (or in your hand as you hold the filter).

III. Turn the white bleed valve cover counter-clockwise to remove it.

IV. Continue to hold the ink filter and reach around the corner of the printer to the ink bay with your right hand to reconnect the ink bag coupler of the target ink bag (this will re-initiate ink fill). Watch the open bleed valve and replace the cover as soon as you see ink appear in the opening (this may take a few minutes, depending on the amount of air in the filter since the ink pump is only active for a brief period every 10 seconds).

V. Wipe up any spilled ink and restore the ink filter to its original upright position in the metal retainer clamp. Be careful not to pinch the ink lines.

VI. Proceed to step 9.
I. In the Ink Bay reconnect the ink bag coupler of the target ink bag (this will re-initiate ink fill).

II. Place a lint-free cloth below the bleed tube of the filter to catch any ink, as shown in Figure 7.

III. Turn the valve shutoff lever so that it is parallel to the bleed tube to open the valve. Note: the ink system is under pressure and so it is possible that some ink may spray out at first. Keep the cloth wrapped around the end of the bleed tube so that ink is contained.

IV. Unwrap the cloth but keep it close as you watch the open bleed valve. Flip the shutoff lever back to the perpendicular closed position as soon as you see ink appear (this may take a few minutes, depending on the amount of air in the filter since the ink pump is only active for a brief period every 10 seconds).

V. Proceed to Step 9.

9. Open the ink purge valves that were closed in step one.

10. Repeat this procedure for any other new ink bags or newly installed ink filters.

11. Perform routine printhead maintenance before printing.