

The following is a step and step guide to help you decide on the best ink set up for your Canon or Epson printer when used for screen positive printing.

Question 1 – Which printer should I buy for printing screen separations?

We have recently started recommending Canon printers for the production of screen separation films in place of Epson models. The benefits of Canon over Epson are numerous:-

- The most recent Epson Printer models have a much reduced print head life compared to older machines. Print heads appear to be lasting less than three years before failure, and the cost of replacing a print head can run to nearly \$ 2,000 and requires a service tech visit. Canon print heads are a fraction of this cost and are customer replaceable – they simply click into place, a process which takes less than 5 minutes.
- Canon wide format printers feature an ink system with a novel sub tank design. This enables the machine to keep printing for a period when a cartridge is completely empty, and cartridges can be replaced without stopping printing.
- The print quality, resolution, and print speed of the latest Canon machines is comparable to Epson at a slightly lower purchase price.

We currently recommend the following Canon models for screen separation printing:-

For smaller print volume customers who need to print 13” wide or less – Canon Pixma iX6820.

For larger print volume customers who need to print 24” wide or less – Canon ImagePrograf TM-200.

For larger print volume customers who need to print 36” wide or less – Canon ImagePrograf TM-300.

For the above Canon models, we recommend installing Absolute Black inks in all cartridges. These machines are all four color (CMYK) print devices with five cartridges installed – there are two black inks installed but only one black is at a time used while printing. This is because the two black ink options provide better results when full color printing on different media types – the standard black ink (BK) is used for color printing on glossy or luster papers, and the matte black ink (MBK) is used for color printing on matte papers. With Absolute Black installed in all five cartridges, the printer can be set to print using a luster paper setting which will use ink from the BK cartridge. When the BK cartridge is empty, the printer can then be set to print with a matte paper setting which will use the MBK cartridge for printing. This means both black cartridges can be fully utilized for screen separation printing.

Question 2 – Are you going to dedicate your printer to printing only screen separations?

Using your machine for printing both screen separations and full color images is certainly possible. However, we strongly recommend that you consider dedicating your machine to screen separation printing only so that you can fully utilize the machines capabilities and the advantages of ‘all black’ printing. For instance, if you dedicate the machine to screen positive printing only, you can set the machine up with the Absolute Black inks in every cartridge to get the blackest image possible and, if you are using specialist RIP software, you can increase the printing speed.

Question 3 – Which software are you going to use to drive your printer?

If you are going to drive your printer using the standard Canon or Epson driver software and are dedicating the machine to printing screen separations only, then we recommend installing the Absolute Black ink in every channel on the machine. The standard driver software can be set to print with black ink only but the media types it allows you to print on and the resolutions you can print at are limited under the black only ink setting. In our experience printing screen separations using standard driver software is much easier using Absolute black ink in every channel – you simply set the software to full color printing and select the recommended media setting for the film you are using. The printer will then print black using all the inks on the machine to achieve the deepest black. You can increase the amount of ink used from the C, M, and Y print heads by going to the advance color section of the driver software and using the C, M, and Y slider controls to increase ink lay down.

If you are going to use RIP software to drive your printer, then you should consult with the RIP vendor as to the capabilities of the software when printing black only. Some RIPs can be set to print black from multiple channels to increase print speed and achieve the deepest blacks, or you can set which channel to print black from – this option allows you to install Absolute black in every channel and then switch from one channel to another as you run the inks down.

Question 4 – Should you use single use cartridges, or refillable cartridges and bulk inks?

For Canon and Epson desk top printer users, we only offer the option of bulk ink for use with refillable cartridges.

For Canon wide format models, we only offer single use cartridges.

For Epson Pro wide format printer users, the choice of whether to use single use cartridges or refillable cartridges and bulk ink is down to how much printing you do and whether you are happy to work with liquid ink. If you only make a few screen separation prints a week then single use cartridges are probably the way to go as bulk inks could go out of date before you use them (2 year shelf life). Alternatively, if you are going through a cartridge or more of ink every month or so, then refillable cartridges and bulk ink will be the most economical option. To calculate ink usage, a figure of 1.5 ml of ink per square foot of black print is typical when printing screen positives. Another point to consider is if you or the printer operator is happy to work with liquid inks. Although our refillable cartridges are very easy to use, refilling does involve pouring liquid ink from bottles into the cartridges and accidents can happen such as spillages or even filling the wrong ink into the wrong cartridge. If your print set up does not include dedicated printer operators then single use cartridges are probably the most reliable option.

Question 5 – Does the printer need to be flushed before installing Absolute Black inks?

For Canon and Epson desk top Photo printer models (excluding the Photo R3000), Absolute Black inks can be installed directly on top of the original inks, and performing three or four cleaning cycles will flush out the original inks and bring the Absolute Black inks to the print head. If you are going to install the inks onto a brand new desk top printer that has never had inks installed before, then we recommend installing the original cartridges that came with the printer to check that the machine is functioning correctly before installing the Absolute Black inks.

For Canon wide format printer models, we only recommend installing the Absolute Black inks from the start in machines that have never used Canon original inks. Just install our cartridges in the machine out of the box and the printer will prime itself with ink. We do not recommend installing Absolute Black inks on to existing Canon wide format machines that are currently using original inks. Because of the sub tank ink system design used on Canon, it is very difficult to flush out the existing color inks.

For brand new Epson wide format printer models and the Epson Photo R3000, we also recommend installing the Absolute Black inks from the start as this will eliminate any unnecessary purging out of inks or flushing. Just install our cartridges into the machine out of the box and the printer will prime itself with ink.

For Epson Pro wide format printer models and the Epson Photo R3000 that are already installed with the original inks, we recommend ideally flushing the printer out before installing Absolute Black inks, and we provide cleaning cartridges or cleaning fluid in bulk bottles for this purpose. However, if you are changing the Epson pigment photo black ink only to Absolute Black ink then flushing is not required. In this case, we recommend running an initial fill routine with the Absolute black ink installed to ensure that the original black ink is removed from the machine. Failure to do this can result in some inconsistent print results when a mixture of the two inks is being used. Details on running initial fill routines are included in our installation guides section of this website. If you intend to install the Absolute Black inks in every channel of a Pro model or Photo R3000 that has the original inks already installed, then flushing with cleaning cartridges or cleaning fluid is recommended before installing Absolute Black. Failure to do so can result in inconsistent printing and jet clogging. Flushing procedures are included in the installation guides on this website.

Question 6 – What are Absolute Clear inks?

Absolute Clear inks are for use in non-active cartridges on Epson printer models. Many Epson machines are 8 or even 12 color print devices, and using all channels for 'all black' printing is not always necessary – four channels of black ink are all that are needed to get the best results when printing screen separation films. If you are using RIP software that allows control over every print head on the machine, then an 8 or 12 color printers can be set to print Absolute Black from four heads only. The redundant heads can be installed with Absolute Clear inks to keep the non-active heads from working if ever needed in the future, and to save wasting more expensive inks during print head cleaning cycles.

Question 7 – Does the printer need flushing before installing Absolute Clear inks?

Absolute Clear inks are freely mixable with the original Epson inks and printers do not need flushing before installation. Simply order the cartridges you need for the non-active channels on your printer and install them one at a time when the existing cartridges run empty.

If you are in doubt as to the best ink set up for your application, or need advice about whether you need to flush your printer before installing Absolute Black inks, then please contact us at 847-827-0871 or by e-mail at inquiries@absoluteinkjet.com.