



Cartridge Refilling

Want to be a professional in cartridge refilling



Business Guide

beginners guide to cartridge refilling

MIS Computer

Business Guide

Beginners Guide to Cartridge Refilling

Ismail Selman Kimyacioglu miscomputer@google.com

We began in this business from 7 years ago. We used to refill inks manually, we thought that this the right way to reduce customer cost; but as soon as we noticed that %80 of the inks that we refilled manually were damaged and not well functioned, we began to search for other solutions. MIS has changed everything. We are now leaders in ink refilling in our area. This machine has changed our life, we are now confident that our result are more than satisfactory for our clients. By with the help of MIS PRO Deluxe, we are managing of refilling %99 of inks in the market with high end qualities.

Tony Harb, Procom

Thanks to MIS, we finally opened our inkjet and toner refill service in Malta. The MIS PRO-6 and PRO Deluxe ink cartridge refill machines are absolutely superb. It is very easy to use and our customers like to watch the machines in action while refilling their cartridges. Your training, advice and support were invaluable.

We were very lucky to have worked with you since we were new to refilling and running a business. I also want to thank you for being so responsive and patient when answering our questions. It's great to have MIS as a business partner.

Thanks,

Antonio Saliba, Refill Planet

Looking for a new business opportunity ?

Print cartridge refilling is a very lucrative business, indeed. As a company, who has been originally refilling ink and toner cartridges since 2000, we produce refill systems with the experience, that we gained actively in the business. However, our main focus is selling the refill business as a whole.

For a successful cartridge refill, we simply follow the original and fabricated techniques. And, therefore, we can guarantee the printing performance of our refill cartridges to our customers.

In this guide, we will talk about the business procedure step by step. In each step, we will give you a brief introduction and visual aids by means of small images.

If you also follow up our [videos](#), we believe, you will benefit the most from this guide.

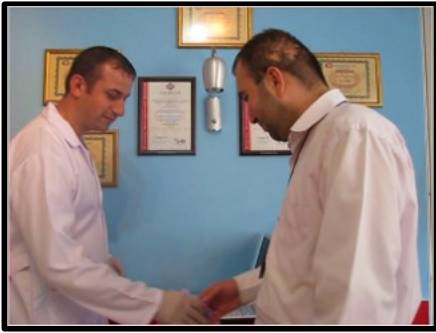
1.) Receiving the cartridge from the customer

We opened our shop and waiting for the cartridges to refill. So, we need customers. As they come in, they will give their cartridges for a refill.

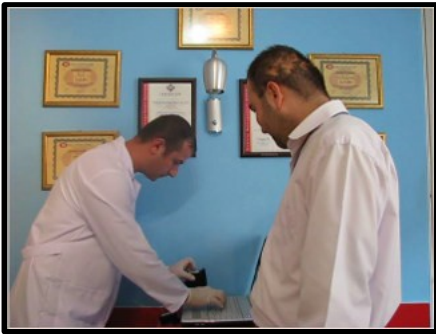
A professional business relies on the logging of its goods and services provided. Therefore, as we take the cartridge from our customer, we enter necessary information into our logs in our computer.

Having that kind of information at hand is also very useful to obtain some statistical data about the services such as how many times we refill his or her cartridge, how frequently we work with the same customer, etc.

Now, let's have a look at the images of this step in the next page.



Customer comes to our shop and gives his cartridge for a refill.



As mentioned previously, we are entering the customer and cartridge data into our computer system.

2. Cleaning the Cartridges

Each cartridge should be cleaned prior to refilling. Cleaning means the removal of the used or waste ink inside the cartridge. If the waste ink is not taken out, it will mix with the new ink and lead to contamination. Eventually, this will result in unsatisfactory printing results of the refill cartridge.

Cleaning starts with steaming the print head. Because the ink dries as soon as it interacts with the air, it is highly probable that it dries on the print head surface resulting in the clogging. Therefore, we soften the dried ink, primarily.

For this action, we need a machine called steam generator. It comes with a steam gun. And we point the gun through the print head and steam it for around 10 seconds.



So, we start our cleaning by pointing the steam gun through the print head..



..and applying the steam for around 10 seconds. Usually, this duration is good enough to proceed.



We also apply the steam to cartridge labels so that we can easily remove them.



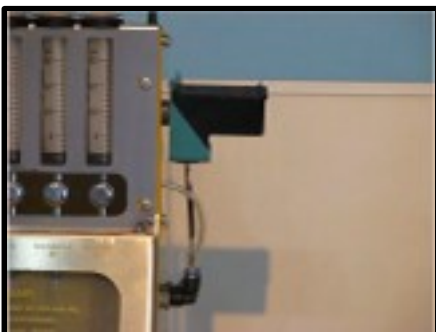
With the help of a knife, we simply peel the label off to see the refill holes.

As a second stage of the cleaning step, we take the waste ink out of the cartridge. Here, in this stage, we have two separate alternatives.

ALTERNATIVE – 1



Using MIS ink refill machines as they have cartridge cleaning lines, too. To remove the waste ink, we fix our cartridge into the vacuum clip, which comes with all MIS ink refill machines.



Afterwards, we connect the clip into the cleaning line of our ink refill machine and start it. As the machine works, all the waste ink is taken out of the cartridge.

All MIS ink refill machines can easily remove the waste ink thanks to the superb vacuuming feature.

As talking about the vacuuming feature, if the dried ink at the print head is not softened, then substantial vacuum of MIS refill machines can result in a physical damage at the print head. This is the reason why we have started our cleaning phase with a steam generator.

ALTERNATIVE – 2



Another alternative for waste ink removal is use of a centrifuge machine. Thanks to the centrifugal force, all the ink is taken out completely.

This machine is very useful when there is a need for cartridge refilling in bulk amounts.

3.) Refilling Cartridges

After we clean our cartridges, we can continue to our procedure by refilling them. This can be done easily by MIS ink refill machines. All of our machines employ “Vacuum Filling” technique, which is the superior and original filling technique used in OEM factories.

Due to the vacuum filling technique, there are vacuum chambers in MIS ink refill machines. They are used to remove the air inside. In each vacuum chamber, there are 5 ink filling lines. This means that in one chamber, we can fill five ink cartridges at the same time.

This technique is a necessity as the majority of the cartridges have sponges inside. If this technique is not used, it is impossible to fill the original ink volume to the cartridge. In other words, if the capacity is 10 ml, we can definitely fill 10 ml.

Furthermore, this technique prevents the common failures from occurring. If you talked to people around, it is highly probable that you should have heard of some complaints about the refilling. When we think that these cartridges are also filled in the factories, not produced as a whole from scratch, it is obvious that there is a mistake or error in the technique used. From the beginning of this guide, we have been talking about a new company trying to penetrate the market with its goods and services of the highest quality possible. Therefore, nobody can afford to take risk of losing a customer just because of a simple fault in the technique used.

Now, let's continue to our business procedure by having a look at our refilling stage.



In refilling, we use the original filling holes on the cartridges, which were used primarily in OEM factories such as HP or Lexmark. We insert the needle coming from the ink filling lines to the respective the refill holes in an inclined angle...



..and start our refill machine. As it starts to run, it first removes the air inside and make the cartridge ready for the refilling stage.



While our machine is removing the air inside the chamber, we are filling our ink to the syringe. Not all the cartridges, have the same ink volume in refilling. However, in our instructions website, you will find the correct ink volume required for each cartridge. For more information, please visit www.refillmanual.com



When the pressure inside the chamber reaches to 520 Torr minimum, we start the refilling process. To do that we simply press "Touch'n Fill" metal buttons. This initiates the ink transfer from the syringe to the cartridge sponge.



When we are done with the refilling, we take our cartridge out and start our tissue test. In this test, we touch the print head to the tissue several times. If the refilling is successful, you should see all the colors in the shape of the print head. In the photo on the left, you can see three colors (Cyan, Magenta, Yellow) with the same shape of the print head.



And finally, we are putting a new cartridge label and finishing this step.

4. Packing the Refilled Cartridges

The last step in our business procedure is packing the cartridges. To do that, we will need some sub-steps.

- a.) Sealing the Print Head: As mentioned previously, the ink is very sensitive and subject to dry when it interacts with the air. Therefore, we need to seal the print head.
- b.) Putting the cartridge into a plastic bag: As the print head sealing is done, we put our cartridge into a plastic bag. Afterwards, we seal the bag opening with a packing machine.
- c.) Putting the cartridge into box: And finally, we put our cartridge into a box and make it ready to give it back to our customer.



In sealing the print head, we put a drop of cleaning solution on the print head. To continue sealing, we have two different alternatives.

ALTERNATIVE – 1



Fixing the cartridge into the “Transport & Protection Clip” is the first alternative. It is easy, safe, and practical. Using this clip protects the print head from ink contamination and drying. It also prevents electronic circuitry from the physical damages, too.

ALTERNATIVE – 2



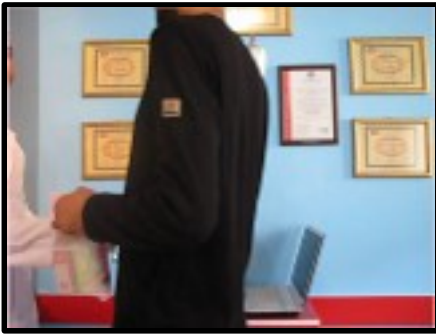
Sealing the print head with blue tape is the second alternative. Again, it protects the print head from ink drying and contamination.



Next step is to put the cartridges into plastic bags. Afterwards, we seal the bag opening with packing machine.



Before we give the cartridge back to the customer, we put them in our box.



And finally, we give the cartridge back to our customer and receive the cost of the service.

This business procedure has been developed by the following factors;

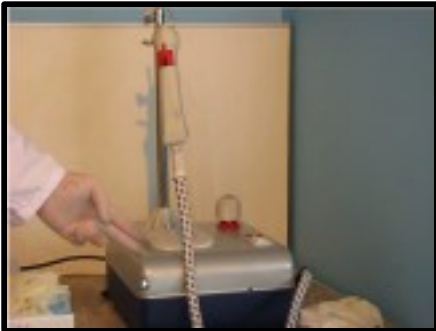
1. 10 year experience of our company in two different countries
2. The feedbacks, that we receive from our clients
3. Experience gained during the transportation of our products
4. Experience gained in working with global and multinational companies regarding to quality assurance and product presentation

This business procedure is the peak point of the technology for print cartridge refilling in a professional manner.

Up to now, we have seen the business procedure step by step. In the upcoming pages, we will see the entire equipment and supplies used in the procedure. For your own ease, we have classified the procedure according to the steps.

I – Cartridge Cleaning Stage

1. Steam Generator



Ink, itself, is a very sensitive chemical substance. Unlike the ink used in pens, cartridge ink is subject to drying when it interacts with the air. Therefore, when the cartridges are not used for a while, the ink starts to dry and clogs the print head and even the ink channels.

In case, the ink is dried at the print head and we skip cleaning with steam generator, the following happens;

a.) Because the ink is dried at the edge of nozzles or print head, we will be unable to take the waste ink out.

b.) In the worst case, it can lead a physical damage in the print head. Because, vacuum emerged in MIS ink refill machines is very strong indeed.

Therefore, we need to soften the dried ink at the print head and inside the ink channels so that we can easily vacuum the waste ink easily.

Steam generator produces pressurized steam. And with this steam, dried ink is softened easily. Due to the pressure, the steam can go to inner parts of the ink channels. Eventually, this process eases the vacuum of the waste ink.

Steam generator is not only used prior to refilling to soften dried ink, but also used to clean the cartridge after refilling to remove ink residues on the surface of the cartridges.

2. Latex Gloves



Use of latex gloves provides a clean and irritation free refilling for our hands.

3. Cleaning Lines of MIS Ink Refill Machines



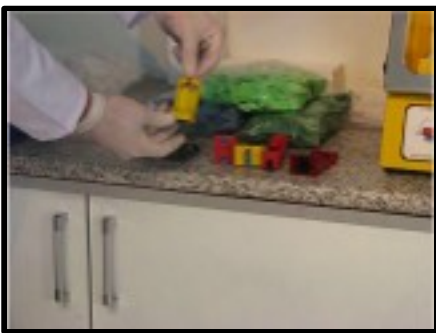
Cleaning lines of the MIS ink refill machines are a powerful solution to clean and take the waste ink out of the cartridge. Thanks to superb vacuuming feature, all the waste ink can be removed easily and quickly.

4. Centrifuge Machine



Centrifuge machine is another powerful solution for removing the waste ink. Thanks to spacious chamber, up to 51 cartridges can be cleaned at the same time. And therefore, it is very useful while refilling ink cartridges in bulk amounts.

5. Vacuum Clips



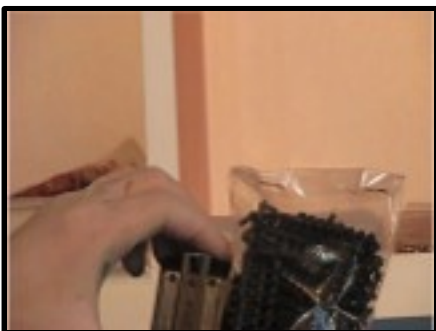
Vacuum clips are used as apparatuses to take the waste ink out of the cartridge during the cleaning the stage. A set of clips fitting to almost all cartridges comes with all MIS ink refill machines.

6. Cartridge Upper Caps



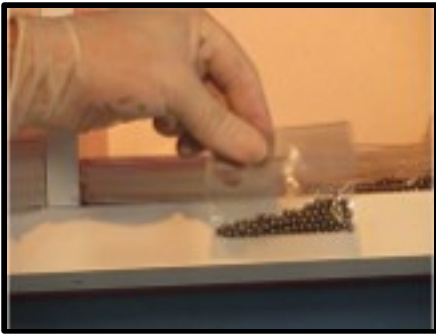
In refilling some cartridges, the upper cap should be removed to see the refill holes. And these new caps are used as a replacement when they are broken.

7. Fill Hole Plugs



In refilling HP 6578, 1823, 51641, and 6625 cartridges, the plugs are pushed into the cartridge to access the refill holes. After refilling, these new plugs are placed as a replacement.

8. Metal Ball Plugs



In refilling some cartridges, the ball bearing should be pushed into the cartridge to access the refill holes. After refilling, these new ball plugs are used as a replacement.

II – Cartridge Refilling Stage

1. MIS Ink Refill Machines



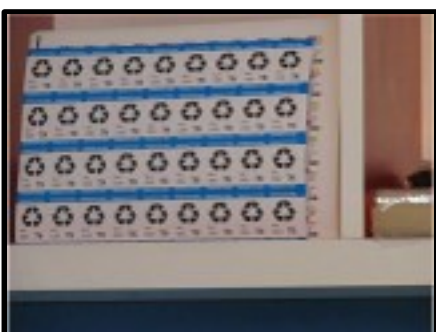
MIS ink refill machines refill all black and color cartridges in the market. Thanks to employed original and fabricated filling technique, they guarantee the success of refilling of all cartridges.

2. Refill Ink



MIS refill inks are proven of quality and ink for all cartridges (black and color) are available.

3. Cartridge Labels



After refilling these cartridges, these labels are put on the cartridges to reflect of the model of each cartridge.

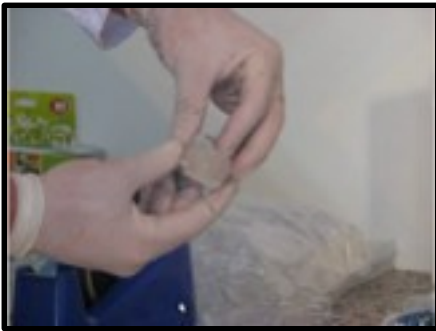
III – Cartridge Packing Stage

1. Cleaning Solution



Cleaning solution is widely used in the packaging stage. A drop of cleaning solution is put on the print head to prevent ink drying or print head clogging.

2. Transport & Protection Clips



MIS Transport & Protection Clips are used to seal the print head. Besides an elegant look, they also protect the print head from physical damages.

3. Blue Tape



Blue tape may also be used to seal the print heads to prevent ink drying or clogging.

4. “Remove Blue Tape” Labels



“Remove Blue Tape” labels are placed between the print head and blue tape so that customers can easily remove it before fixing into the printer.

5. Glue



It is used to glue some parts to cartridge body such as cartridge upper caps.

6. Cartridge Bags



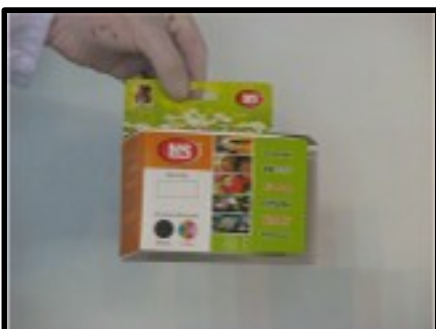
Cartridges are packed into these transparent bags. 3 different sizes are available; small – medium - large.

7. Packing Machine



Packing machine is used to seal the bag opening.

8. Cartridge Box



Finally, cartridges are put inside these boxes. As MIS, we offer cartridge boxes without logo. So, you can reflect your own company image with a decent design and establish your brand recognition.

9. Silicon Gun



Silicon gun is used to glue the sides of the cartridge boxes.

Print cartridge refilling is a relatively easy field to start. In other words, it is not hard but requires and deserves some attention and a procedure to follow. In this guide, we have tried to explain the steps of the procedure and what we have used to accomplish the tasks.

As mentioned earlier in this guide, we believe that following up this procedure is the peak point of the cartridge refilling business and takes a business entity to one success to another on an everlasting ground.

You can have more information;

- at our company website (<http://www.miscomputer.net>)
- watching our presentation videos at (<http://www.miscomputer.net/index.php/videos>)
- referring to our instructions website (<http://www.refillmanual.com>)
- contacting our support team at (<http://www.miscomputer.net/index.php/contact>)

We hope this guide provides the best help and you benefit at the maximum level.

All the best,

Ismail Selman Kimyacioglu (Mr.)

Sales Manager – MIS Computer Ltd.