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Dial printing 101

By: [DonCorson \(registered\)](#) Monday, June 23rd, 2008 - Photo Nav: [View All 1 photo\(s\)](#)



Today I had my dial printed, here a little pictural introduction to dial printing.

Dial printing is traditionally done by transfer printing, also known as tampon printing.

The ink is transfered from an engraved steel cliché, where it remains in the engraved recesses after being wiped off of the flat surface, to the dial. The transferring agent, the tampon, is made of

gelatine or silicon. I am having my dial printed at a shop doing this traditional transfer printing

as it has been done for the last 150 years at least. The machines they use date from the first

decades of the last century.

Here an engraved cliché ready for work.

The cliché is mounted on the right bed of the tampon printer.

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On the left bed the dial to be printed takes its place.

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Roughly centering the dial.

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Before the gelatine tampon is used it is dusted with marble dust.



To do trial runs without really printing the dial clear plastic foil is placed over the dial.



Now the ink is spread over the cliché.



The excess ink is scraped off with a perfectly sharpened spatula leaving the ink only in the recesses of the cliché.



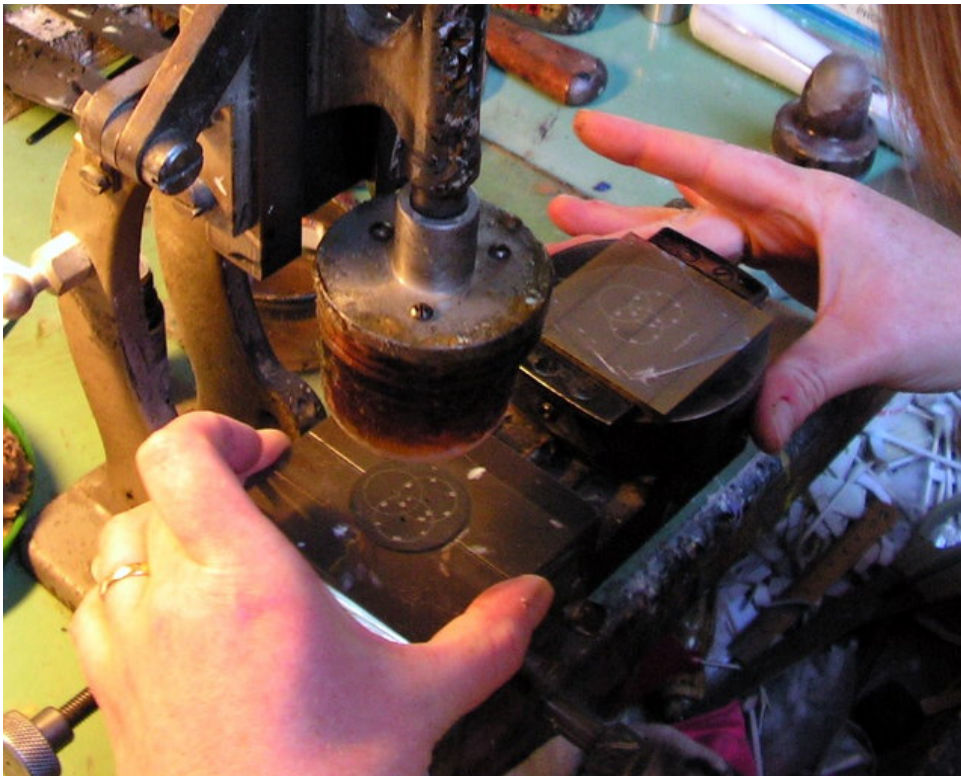
The tampon is pressed on the cliché and picks up the ink.



The bed is moved over to place the dial, covered with the plastic foil, under the tampon.



The tampon pressed down on the dial leaving the ink in place.



The positioning of the bed holding the dial can be adjusted in all directions to be able to place the desired pattern on exactly the right place of the dial. Multiple attempts are

necessary to adjust
things perfectly.

Before making the decision that the positioning is good close inspection is
necessary.



Some of the different tampon forms here in the shop. Depending on the shape of
the area to be
printed, the form of the dial and the material different tampon forms are chosen.



A small portion of the storage of clichés for all the major names in haute horlogerie.



Positioning OK, now it is time to really get down to business. Spreading the ink.



Picking up the ink on the tampon.



Printing on the dial.



A finished dial.



Closer up

Of course this procedure can be and is automated to be able to print thousands of dials a day. But for those small quantities and one-of-a-kind pieces, working by hand is still the only way.

I hope you have enjoyed this short trip to a dial printing shop, and learned something too!

Don

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Great

By: [yau128 \(registered\)](#) Wednesday, June 25th, 2008

Great pictures, as clear as it can be. And very interesting to see that there are things still made by hand. Incredible, thanks for the comments going with the pictures, very helpful and educational.

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um yeah i have a question

By: [anabay1995 \(registered\)](#) Monday, May 11th, 2009

what is the brand of the gelatin and that machine that goes up and down?

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looking for to buy one of this printing machines

By: sierraciarli (registered) Friday, October 2nd, 2009

I All,May you help me to looking for a manual (and old) dial printing machine ?I would buy to print my wood dial.Regards,Sandro

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Dial background finish

By: timewiseinvestments (registered) Saturday, January 16th, 2010

Hello just wanted to say great post and thank you very much for sharing, I have been doing my own dial refinishing for about two years now and your post has enabled my quality of work to be increased dramatically.

I had much frustration early on due to no information on dial refinishing available.

I had encountered a problem with my local dial maker here in Seattle and he was quite rude in his response to my questioning the quality of work performed, I decided that day I would teach myself to do learn dial refinishing, it has now been two years since that time and I have only had one dial refinished by him during this time and that was my last.

It was very helpful for me to see that you use a clear covering over the dial for test prints for alignment set up.

I have been trying to figure out how to do a two tone finish in say nickel and gold on a dial, I have seen where in a round dial where in the very center it is gold, then moves to a section that is nickel then back to gold again like a bulls eye pattern.

If you have any information on how this is done would you mind sharing this?

I have thought of using my printing inks that are oil based to use as a mask when putting on the gold plate finish after doing say a nickel for a two tone.

Again thank you very much for sharing, it has helped me greatly.

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