

Fountain Pens 101

What you need to know about preparing, maintaining and using a fountain pen

Background

In the five years after the first ballpoint pen was introduced in 1945, fountain pen production dropped by almost 90%. The new ballpoint pen was more convenient, less expensive and more versatile than the fountain pen. In the last 15 years, however, the fountain pen has been growing in popularity at an astonishing rate. The ballpoint, although convenient, does not give the writer the very personal feeling and control that a fountain pen does. Today, fountain pens are seldom used as an all day pen of choice, but serve as a signature, special letter or note pen.

Basic mechanics

In the simplest of terms, ink travels from a sealed container – the cartridge or converter pump – through a hole then into the feed. The feed has a thin groove on top which carries the ink to the feed fins and then to the tip of the nib. When the nib touches paper, the ink is drawn to the paper by capillary action and flows from the feed fins which are replenished from the feed groove which is replenished from the sealed ink container. As more ink is used, a vacuum is created in the sealed ink container, which is relieved by "gulping" an air bubble from the hole in the nib. The ink in the feed wings and under the nib is held in place by a combination of water surface tension, molecular attraction and the vacuum in the sealed ink container. The nib and feed go into and are held by the section.

Preparing and using a new fountain pen

Whether you are using an ink cartridge or the converter pump, the fountain pen must first be primed with ink. Ink must be in the feed groove, in the feed wings, and under the nib before the fountain pen will write properly and continuously.

Cartridge: Insert the open end of the cartridge firmly onto the nipple inside the back of the section. To prime the pen you have two options:

- Squeeze the cartridge so ink comes out of the tip of the nib. Clean the nib and under the feed with a tissue; write a few words to test the pen. It should write. If not squeeze again but harder.
- Screw on the pen the section, nib and feed assembly and then quickly snap the pen down hard so ink comes out the front of the nib. Clean the ink from the nib and under the feed with a tissue. Test and repeat if the pen does not write.

Converter Pump: Insert the open end of the pump firmly onto the nipple in the back of the section. Turn the black ridged piston handle very gently counter clockwise until the piston is at the bottom or open end of the pump. Dip the nib entirely into your ink bottle and turn the piston handle clock wise to draw the ink up into the pump. Clean the nib and bottom of the feed with tissue paper. The pen is now automatically primed and writing can begin.

Using and maintaining a fountain pen over time

Many years ago, before ballpoint pens, people would purchase and use the same fountain pen for many years – sometimes their entire life. The more that you write with your fountain pen, the more it becomes "your" pen. The nib breaks in according to your way of holding the pen and your writing style. If you would write with a new or another person's fountain pen, it would not feel right.

Your fountain pen will occasionally need minor maintenance. If you don't write with it for a few days, the ink may dry at the nib tip. You will notice that the pen will not write or skip. To remedy this, run a small stream of warm water over the tip of the nib for a second or two; the pen will now write. If you do not write with your pen for a long period of time, for example two months or longer, you may have to use a stronger stream of water for a longer period. It is also possible that you may have to remove the ink container and flush the ink out of the nib entirely and re-prime the pen. When not in use, the best way to store a fountain pen is in the horizontal position.

A short trouble shooting guide

Fountain pen will not write, skips or writes a few lines and stops: If this is the first time the pen is used and you are using the cartridge, then the pen has not been properly primed. Prime the pen again by squeezing the cartridge hard; you need to see a lot of ink come out of the tip. If the fountain pen has been in use for a while and has written well in the past, first run a small stream of warm water over the tip of the nib, then test the pen. It should write. If this does not work, try priming the pen again. If this does not work, you may have to flush out the pen entirely.

Fountain pen "glops" ink while writing or a large amount of ink flows onto the paper: This means the ink holder has lost vacuum. When using a cartridge, this can occur when the ink supply is very low. Change the cartridge when the ink gets very low; do not wait until the pen stops writing. If this happens with a converter pump, the pump is bad; obtain a replacement. Occasionally, a small hair or paper fiber can get caught in the nib slit. Inspect the nib with a magnifying glass and remove the hair or fiber with a tweezers.

Never use India ink or similar inks in a fountain pen: These inks have very high solids content and will clog a fountain pen; always use inks made for fountain pens.