The inkjet printer quality in a bubble by Anne Mary

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When it comes to inkjet printers there are three main technologies that can be used to develop their inner workings, these being Thermal, Continuous and Piezoelectric. The Thermal process creates a bubble from which a water-soluble pigment or dye-based ink drop, attaches itself to the paper. Continuous is for the coding and marking of packages and products in the commercial world. It has a very high velocity of droplets but can be quite volatile and requires solvents such as ketones and alcohols in the handling system. Piezoelectric ink chambers are usually used in larger industrial printers, sitting behind a nozzle and use a voltage to alter the shape of the crystal that is enclosed which in turn applies a pressure pulse of fluid. This is the most expensive of the three principles but does offer the greatest variety in inks.

A mixture of glycol, water and dyes or pigments is the base for the smallish inkjet printers that are used in offices or indeed for personal home use. These are known as aqueous inks and are relatively inexpensive, compared to UV-curable inks which consist of acrylic monomers which once printed need exposure to UV lighting, but they do present an image that is extremely vigorous. The printer head has two alternative designs, which are fixed or disposable head. There are pros and cons for both and it is just a matter of forming an opinion based around cost, productivity, reliability and speed.

One of the chief problems with the inkjet printer is evaporating moisture forming solid blocks of hardened dye in the ink passageways and obstructing the ink flow. The newer printers have a built in mechanism that regularly re-applies ink to moisturise to the print head. Ink drying can occur in a specially adapted tube which wraps itself around the ink tank. The necessary air that mixes with displaced ink during the printing procedure can cause some evaporation and slowly dry from the inside outwards.

There are some printers that have a system built in that allows the printer head assembly to be effectively parked when the machine is not in use ensuring that there is no accidental movement. With regards to the ink cartridges themselves, it very much depends upon the actual manufacturer and model of the printer it is intended for. They come in varying combinations, plus separate cartridges for each colour. If the devices are idle for any period of time, many have an automatic short cleaning cycle as a precautionary measure.

The prints themselves from an inkjet printer are usually incredibly fast drying, meaning that images very rarely smudge even for a high volume of copies. There are some occasions where there are some issues with what is referred to as ink bleeding which is where the ink is carried sideways away from the intended location resulting in what can best be described as a muddy appearance upon the paper. Several of the leading manufacturers sell a kind of clay-treated paper to help reduce this effect. The modern printers are very adaptable and can multi-task making them three sometimes four applications in one single package.

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At a www.77ink.com there is a full assortment of top quality printer cartridges to choose from including excellent deals like the 10-piece bulk set of a LC65 ink cartridges.

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