

*What you should know....*

## **About Remanufactured Inkjet Cartridges**

### **What is remanufacturing?**

Remanufacturing is an industrial process whereby spent inkjet cartridges are disassembled and cleaned, refilled, engineered to become "as new", fully tested and then marketed as own-brand cartridges, competing on the basis of price and quality with new cartridges. The empty cartridges are collected from consumers, businesses, charities, sporting-clubs, schools, etc. At the forefront of the development of new, environmentally friendly manufacturing, the remanufacturing industry is also instituting new, industry-wide systems and initiatives which are creating a recognizable foundation of quality and effective management across all markets. Indeed, many firms within the industry are now developing new product and marketing ideas on a par with the Original Equipment Manufacturers (OEMs).

### **Are remanufactured cartridges poorer quality than the branded originals?**

No. (Not if you are dealing with a quality company like PG). And many independent consumer surveys confirm this: -January 2007 and November 2003 comparison studies by the reputable German test organization Stiftung Warentest both confirmed that non-OEM cartridges are not only cheaper but also equal quality ! -in a February 2005 performance study into 11 inkjet printer types, the national independent consumer organization Consumentenbond commented that "contrary to what printer manufacturers tend to say, printers using non-original cartridges do not give perceptibly more complaints than printers using original cartridges". -the German computer magazine C't(Heise)issue 9/2005 asked 2700 users on-line, and concluded that the fear for using non-OEM cartridges is unnecessary. And ETIRA confirms this: remanufactured cartridges are made according to the highest standards (including ISO,DIN) and produced 'fit for purpose'. Our growing sales prove the satisfaction with remanufactured goods. Judging by the substantial and rapid growth of our industry in the last decade, customers are increasingly satisfied with the choice and quality remanufactures provide. With quality levels being the same or higher, the only real difference between an original and remanufactured cartridge is the price!

### **Are all Remanufactured cartridges the same?**

Not all Cartridges are Remanufactured equally. There are hundreds of companies that produce defective & sub-par cartridges. Here is what they do not do.....All PG inkjet cartridges are manufactured exclusively with fully tested & qualified empties. Recycled cartridges must be in excellent condition and free from electrical and visual defect before they make it to the production floor. This is critical because you can't make a quality product from poor quality raw materials. PG has an in-house state of the art reverse osmosis water filtration system that generates all of the pure water needed for cleaning cartridges and removing the old ink. In addition, on select cartridges custom designed cleaning solutions are also used to ensure that every last bit of the original ink is removed. PG cartridges are taken apart and as many pieces as possible are replaced. This includes in many cases: foam, caps, filter screens, and more. Each cartridge is prepared for the filling process based on its exact design.

We design, upgrade and build all of our own production equipment with our team of engineers. Each machine is designed specifically for each cartridge to ensure consistent process and efficiency. Utilizing the latest filling technologies cartridges are vacuum filled and tested where applicable.

Each cartridge is tested 100% after production. Every cartridge must pass through a series of tests in order to ensure optimum performance. In addition to this test all cartridges must pass through our QC Testing Center which tests random samples to insure that our failure rate is the industry's lowest and to measure yield and performance. All cartridges are cleaned and labeled to exact standards. Each is tested in vacuum chambers to ensure they are ready to be shipped by air. Finally they are packaged into the attractive PG Brand packaging.

### **Who buys remanufactured cartridges?**

A growing number of consumers and businesses. Increasingly, remanufactured cartridges are a first choice for users who recognize that cartridges are often the largest cost they have when buying a printer or a copier. Our industry's commitment to quality, value and service means that business users can benefit from reduced costs in printer cartridges without any loss in quality. Home users of computer printers and faxes are also recognizing that remanufactured cartridges - which are often up to 20%-50% cheaper than the OEM equivalents - represent a real, cost-effective and environmentally-friendlier choice for them

### **How does remanufacturing help the environment?**

Every year, more than 500 million plastic printer cartridges end up dumped in landfills around the world. But cartridges can be remanufactured for re-use, easily up to 2-3 times: our industry substantially reduces the number of cartridges going to landfill, in an ideal world by a staggering 66-75%! Every cartridge that we remanufacture is one fewer going directly to the landfill. For every remanufactured cartridge purchased, its one less new cartridge that needs to be produced, saving energy, and preventing it from entering the waste stream and from draining the planets natural resources.

### **How do you substantiate your claims about "being green"?**

The re-use of the plastics and metals used in toner and print cartridges is by far the most environmentally-friendly method of dealing with what is, essentially, a waste product - the empty cartridge. For example, recycled aluminum, used again in remanufactured products, uses 95% less energy in manufacture than virgin aluminum. Remanufacturing, however is not only about being 'green'; it is a real solution to the growing waste mountain that delivers significant business and tangible and real environmental benefits. It is not just an industry - it is a manufacturing ethos of re-use, not just re-cycle. The EU has recently set new levels in graduation in general waste policy: Prevention of waste now has the highest priority. Immediately next comes re-use of waste. The collection and controlled dumping, as advocated by some OEMs comes as last resort. Remanufacturing therefore is biding by US & EU policy to the letter and the spirit.

### **How much raw material is saved each year through remanufacturing?**

Significant amounts of waste that would otherwise end up in landfill sites are reused by our industry. Our own research estimates that remanufacturing can make a significant difference to the amount of new raw materials produced and used to supply the growing demand for inkjet and toner cartridges: