

Importance of Printhead Cleaning

Thermal transfer printers need regular maintenance to maintain their performance just like a car needs its oil changed. Typically, printer OEMs recommend cleaning the printhead after every ribbon. This assures the best print quality and the longest printhead life.

Cleaning the printhead regularly removes dirt and residue that is normally deposited on the print head during the printing process. If not cleaned off, the residue “bakes on” and eventually becomes permanent. Permanent buildup causes print quality problems, such as lighter print, voiding, and streaking, as well as shortened printhead life.

Problems can be prevented by regularly cleaning with Clean Start®, a patented printhead cleaner built in at the beginning of the ribbon. It is a convenient alternative to not cleaning at all, and can reduce printhead replacement costs and maintain print quality.



Testing Demonstrates Clean Start Reduces Printhead Buildup

This test compares Clean Start's performance to not cleaning at all. A label with two identical images side by side was designed. At the beginning of every new ribbon, we cleaned one side of the head with Clean Start while not cleaning the other side.

Approximately 1 million linear inches in total were printed. The side cleaned with Clean Start showed less wear and build up than not cleaning at all. This was true in areas of high duty (heavy printing) and in normal duty areas of the head.

Following are magnified photos of the printhead on each side. On the side that was not cleaned, the printhead shows evidence of wear and buildup. On the Clean Start side, there is less buildup and the elements are well defined indicating less printhead wear.

Test Specifics

Label Format

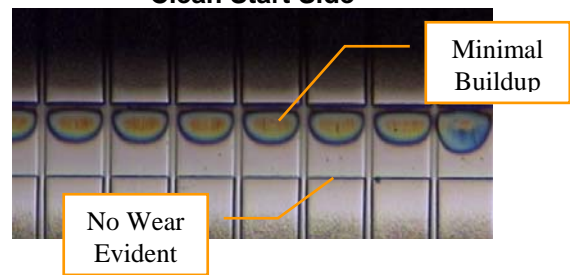


- Printer: Zebra 140xiii
- Speed : 8 ips
- 1 million inches printed

Side Not Cleaned



Clean Start Side



Using Clean Start Lowers Printhead Replacement Costs

This test concludes that using Clean Start regularly to clean the printhead minimizes buildup when compared to not cleaning at all. Routine cleaning ensures that the printhead's life is extended beyond what is achieved in cases where no cleaning method is used.

Since its introduction in 2004, Clean Start's performance has been confirmed by a number of actual field

experiences. In case after case where regular cleaning was neglected, annual printhead replacements have been dramatically reduced, with significant savings. Additional benefits of using Clean Start include consistent print quality over time and less printer downtime.

Real Application Examples			
Type of industry	Before Clean Start	After Clean Start	Savings
Synthetic fabrics manufacturer	60 printheads/yr (5 printers)	12 printhead/yr	5x fewer printheads Saved \$35,000
Plastics Manufacturer	16 printheads/yr	2 printheads/yr	8x fewer printheads Saved \$7,000
Manufacturer with 100 printers	Print quality complaints and printhead problems	Less fire-fighting	Freed up IT manager for more important projects
Carpet manufacturer	Costly printer down time	Fewer printhead replacements	Readable labels throughout the supply chain - No retailer chargebacks

Printhead life does vary based on a variety of factors, such as label format, heat setting, speed and printer platform. Every application is different, but one thing remains constant – using Clean Start with each ribbon cleans off buildup and extends printhead life.