

Gun Drilling

What is Tool-X?

Tool-X 107 is a Nano fluid and uses very few chemicals. We have replaced these toxic chemicals with safe Nano Particles that are not harmful. Increases in tool life, improvement in surface finishes, and removes that rotten egg smell, increases feed and speeds are a few of the things this Nano Technology will do for you.

Welcome to the future in metal working fluid technology.

APPLICATION: Gun drilling of hot rolled steel in a dual spindle machine using a 180 oil in a very small sump with high heat problems.

PROBLEM: Reduction in heat and cost -do to the fact that tool-life was terrible, and heat was excessive.

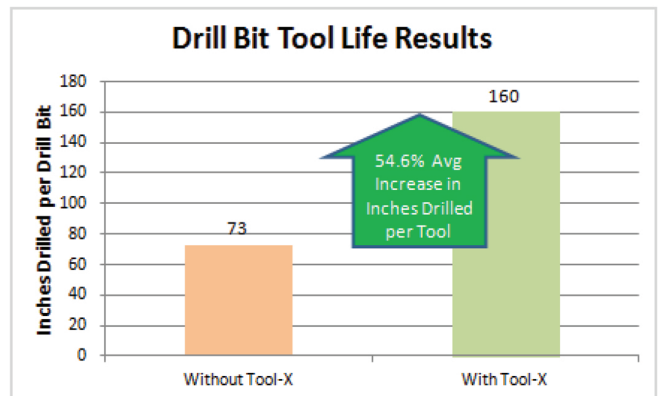
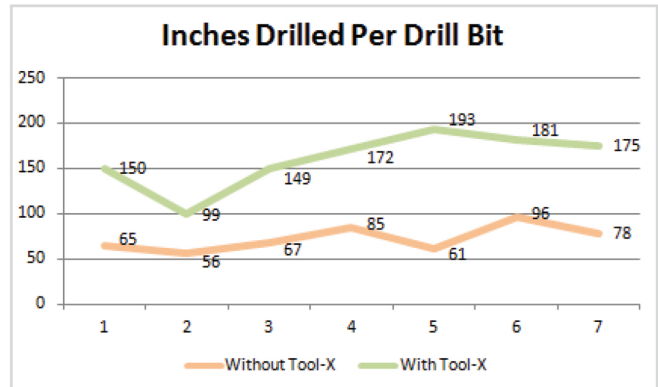
PROCESS REVIEW: Using a 0.734 dia-bortek self-center drill bit, designed for deep hole applications. Bearing pads were added to keep the drill centered and the process was started.

SOLUTION: After a 24-hour period the increase in tool life starts to happen. After a 2-week period we checked again, and we started to see a major improvement.

RESULTS: An increase of 54.6 percent and it was increasing. After 9 months the increase went up to 90%, this where we stopped monitoring this application.

What is the role of Nano technology in metal working fluids?

Nano particles added to a cutting fluid will improve the lubricating properties in the metal removal processes by reducing production time, labor hours, and energy usage (costs) which will increase throughput. The nano particles will reduce friction and heat at the cutting surface which is a major difference over a conventional chemical coolant. Not only do nano particles lower the heat, but they will transfer the heat to the sump of the machine where it can be wicked way. The ability to cut different metals like aluminum & titanium without changing coolant is a huge advantage. The level of performance over your current coolant will be dramatic and there will never be any skin irritation or rotten egg smell. See attached to this website www.Tool-x.net



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