

Technical Paper - Cutting Tool Management Philosophies and U.S. Tool Group's Cutting Tool Manager Software

Current Inventory Management Strategies Relating to Cutting Tools

In most inventory management environments where reconditioned cutting tools are utilized, the common approach is to ship reconditioned tools until the inventory is depleted and then fill the void with new tools. This approach seems logical at first, but generally results in excessive purchasing of new tools, which creates slow moving or obsolete stock, causing new tools to be issued rather than reconditioned tools.

Background – Understanding a Tool's Life Cycle

For those cutting tools that can be reconditioned, each tool has a collection of unique characteristics that determine how many times that tool can be returned to service. The tool's life cycle also will be affected by the customer's machining capabilities and limitations. Understanding each tool's characteristics and the customer's requirements create a foundation to determine the tool's life cycle. As a complete tool reconditioner with expansive tool inspection and information management resources, U.S. Tool has a specialized capability to capture and report these life cycle ingredients.

Capturing and Reporting Return Rates and Scrap Rates

To maximize the use of reconditioned tools, an appropriate inventory of those tools must be present at the time releases are made. Several factors contribute to the availability of reconditioned, sharp tools including:

- Quick retrieval of dull tools from customer locations and return to US Tool
- Enforcing the return of tools before they are deemed unusable
- The proper application of tools to avoid creating a condition whereby the tools cannot be reground.

Cutting Tool Manager Software

In addition to these major factors relating to increasing the use of reconditioned tools, the foundation of US Tool's cost savings strategy is our proprietary *Cutting Tool Manager* software. This internally developed program captures usage, return and scrap rates to calculate a "fall out or attrition rate" based on the anticipated life of each tool. The fall out rate is the statistical determination of the amount of new tools that must be injected (purchased) into the system at appropriate times to produce the highest possible percentage use of regrinds compared to total issues.

The fall out rate philosophy also controls new tool inventories to prevent overstock situations that lead to obsolescence. As mentioned above, an overstock situation also promotes the use of new tools ahead of reconditioned tools. Purchasing a consistent quantity of new cutting tools each week/month allows blanket pricing and other agreements to be negotiated with manufacturers, providing a stable price and predictable delivery. Purchasing new tools according to the fall out rate provides an even flow of new tools into the program.

In addition to providing intelligent replenishment points and reorder quantities, the *Cutting Tool Manager* produces a pick ticket that clearly indicates the number of new and reconditioned cutting tools to be picked by US Tool's warehouse personnel.

Summary

The capabilities of US Tool in the areas of new tool procurement, dull tool reconditioning, finished goods inspection and information management, coupled with the unique *Cutting Tool Manager* software provide a single intelligent solution to the intricacies of managing cutting tools. US Tool is unique in our ability to provide these capabilities and resources.