

## Clean and Separate Shavings from Manufactured Drill Bits (Various Sizes)

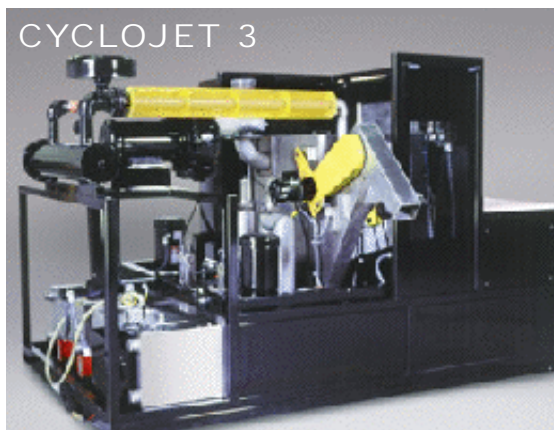


### BACKGROUND

This customer is one of the largest manufacturers of electric power tools in the world. This plant manufactures several types of driver bits from hardened steel. They needed an automated cleaning system.

### PROBLEM

This application was almost impossible. The customer's screw machines have no means of breaking-up chips or sorting the chips from the parts. Hence, a tray of machined parts had an equal volume of chips and the chips were mostly long "curly-cues". The big questions were: a) how can a basket load of parts be tumbled such that the long spiraled chips fall out but the parts don't, and b) how was the system going to handle such a huge volume of nasty chips?



### SOLUTION/SYSTEM

Chips issue(s) aside, the Cyclojet 3 tumbling unit was the right system. Tests showed that the chips could be separated from the parts if the baskets had slotted openings longer than the chips but slightly narrower than the parts. The unit was then customized with an automatic chip conveyor. The chips are continually removed from the cleaning chamber and deposited in a drum...the chips never get

to the holding tanks. The system is washing, rinsing, and drying 10,000 parts in a 15 minute cycle.