



Remmele Engineering, Inc., Big Lake

# Tool Crib under Control

Remmele Engineering has made its reputation in providing the highest quality of complex machined components to various market segments. Whether its unique parts that manufacturers can not, or will not, produce themselves or tackling a material that is deemed too difficult to machine, Remmele has proven themselves time and again as a viable and creative solution 'developer'.

Remmele has four different plants throughout the metropolitan area of Minneapolis, Minnesota. With over 130 CNC machining centers of various sizes and functions, the customer base that they serve can range from very small, intricate medical applications to larger, complex aerospace parts.

Having a reputation that had been proven time and again over decades, placed Remmele in a position that virtually created opportunities that were knocking at their door, literally every day. However serving various markets also meant that manufacturing had to be arranged and segmented appropriately. Different areas needed different types of tooling ... a lot of different types of tooling. Tooling demands were becoming unmanageable. "Remmele had no formal Tool Management System in place. Therefore, orders were being placed for components already on-hand, everything was always hot and expediting cutter deliveries via UPS Red was a daily occurrence", states



Tom Shuga, CIM Manager for Remmele Engineering Inc. "NC Programmers and Manufacturing Engineers had to physically browse the crib inventory, looking for tooling which would meet their needs. Often it was easier and faster just to order more. We knew we had to find and implement a system solution that could get this under control."

TDM was approached and the problem was evaluated as to how best to provide a solution to Remmele. Once this was completed, the process of dedicated work by Remmele staff to tackle the problem head on and realize how to best implement TDM's Tool Data Management system to help alleviate the situation.

The installation of TDM included the tool crib module to achieve inventory control, but also the ability to build tool assembly libraries and tool lists. TDM also interfaced to their NX CAM and Vericut Systems. The tool crib module provides the tracking of inventory for individual components



and assemblies whether this inventory is stored in a physical crib, vending machine, storage area or shop floor. It also allows the establishment of minimums and maximums of items and can internally interface directly with various ordering and ERP systems, to place orders directly with vendors. "Remmele uses TDM Ordering which creates purchase

more follow-on business adding to Remmele's history of success as a provider of complex components and assemblies for the aerospace, defense and medical industries.

As Remmele goes forward and continues their relationship with new customers as well as focuses their efforts to support current customers, TDM's system will most assuredly be part of their solution and a useful component to continue their reputation as one of the finest contract manufacturers in the country.

orders within the TDM P.O. Database and then emails their orders directly to preferred suppliers via PDF attachment", says Tom. Once items arrive from vendors they are 'Received' against the TDM P.O. which automatically adds quantities back into the inventory. When assemblies come back from the shop floor and are broken down, durables go back into inventory for future use and consumables, if need, can be scraped out, if the useful life has been realized.

"It was definitely a process, implementing TDM across multiple facilities", adds Tom. " We started at the New Brighton facility, then implemented at the two facilities in Big Lake, Minnesota". "The tool crib was the busiest area in the New Brighton facility at one time", as stated by a Remmele Manufacturing Manager . "We simply didn't know where different items were and if we had enough of them to make assemblies that we had to have at the time. Now the tool crib is the quietest area in the building". "A side benefit was, once all or our tool crib components were loaded into TDM, we actually 'recovered' tooling inventory valued into the seven-figures". This turned invisible inventory into visible assets for the CAM Programming and Engineering groups to draw upon.

"The use of TDM interfaced to NX CAM and Vericut also provides us a big benefit by populating NX with Tool Definitions and Vericut with Simulation Graphics required for proofing CAM programs prior to cutting chips on the shop floor", says Shuga. Remmele tested the use of TDM Tool Assemblies, Technology Data and the interfacing with NX CAM and Vericut on a large complex Boeing project, with great success. The use of common tool assemblies with standard feeds and speeds stored as technology data streamlined the CAM Programming process, improved the programming consistency and resulted in achieving very aggressive delivery dates. The success of the Boeing project lead to

