

# Control Your Tools And Manufacture More Efficiently



The Mori Seiki tool magazine belongs to one of the two large work centers at Agathon: 330 tool pockets are available and wait to be supplied with exact tool setups.

(Picture: TR)

**At machine tool maker Agathon, tool magazines in their two largest work centers hold 330 tools each. Agathon uses WinTool tool management software to transparently manage its routing, ensure correct setups, and flawlessly load both machine magazines.**

Reto Mägli stands in front of a Mori Seiki NH 6300 tool magazine on the Agathon shop floor in Switzerland. He sees a long chain with 330 tool pockets that are partially empty while he reflects on it. "It is really incredible; the capacity one person can handle with a tool management system like WinTool. If I run two programs on each of the 8 pallets in our pool I deal with 16 programs simultaneously. If I mount a clamping tombstone on two of the pallets it becomes 20 programs. In the best case we can run the jobs over night using different programs and tools. The cell software can manage that! WinTool delivers to us the information to prepare the tool load so that we do not run out of tool life time during production. At the same time, we do not carry redundant or forgotten tool duplicates in the magazine".

Getting there took a while, and Reto Mägli knows each step on the way there. The certified fixture engineer has worked for grinding machine maker Agathon for 23 years. He was trained in their internal apprenticeship program, and received a degree at the well renowned technical school in Solothurn. Solothurn is world famous for Swiss watches and medical production. After that, Reto switched to the engineering design department that used a home grown database running on Win-

dows 3.11 and an ERP system based on AS400. At that time, their cutting tools were treated as "ERP items" and all technical details were entered into a text field.

The management recognized that tool management applications were progressing rapidly, and advanced systems were available on the market. They understood that the future was to take advantage of these new developments and integrate the different systems to improve their work flows. In 1998, when the old software maintenance contracts ran out, they decided to update the PCs to Windows NT.

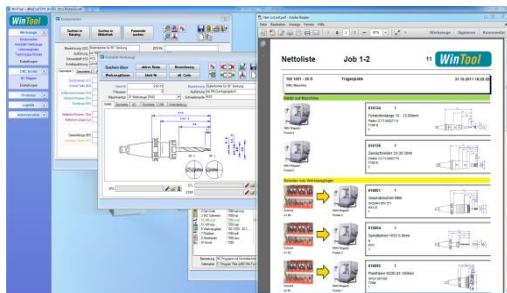
Agathon management decided to purchase WinTool, which had only been on the market for one year at the time. The decision was made based on the good experience they had with an NC program editing software they had purchased from the same manufacturer, and the fact that the only comparable tool management software available was Walter TDM, which, at the time, was much more expensive.

The evaluation and system tests lasted for 6 months, but then WinTool was implemented quickly and has continued to have a positive effect since. Reto remembers: "We went at it full throttle, the order was: now that we have the new system it must work right away. In 1998 I had only been working in



Each tool duplicate has a chip from Balluff that stores information from WinTool and offset values measured on the presetting gauge.

the design department for one year. Then, right before Christmas our management broke the news: When you return from the holidays, you will get a new system. That was it. It was a challenge to say the least. It was the beginning of many problems which we did not anticipate and which were mostly based in the shortcomings of the previous system."



**WinTool speeds up the decision making and production process with concise information and tool setup recommendations.**  
(Bild: WinTool)

What caused the problems was that the team did an automatic "export-import transfer" of the old text fields into a new tool management



**WinTool is also installed on the presetting gauge computer; the worker can easily switch between WinTool and the presetter software and transfer data.**

system with many data fields and a much more advanced layout. At the time there were no electronic catalogs or downloads from tool manufacturers that one could copy the data from as are available today. So while production was running as usual in parallel, Reto needed to use every free minute to go through thousands of mills and drills and fill in the data in the empty fields. For their operations they used about 20 of the 100 data fields but due to the pressure they worked under, it happened that some values did not get filled in correctly. When the mistakes got spotted later on they had to be fixed, an issue that Reto still remembers. Another thing to consider was that as the software was enhanced, the use of the data became more sophisticated. More data fields needed to be filled in to make use of the new improvements.

Today the data entry work is much easier than it was back then. Now it is possible to copy complete tool records from electronic catalogs including graphics, information, relationships, and links. WinTool also has many more useful features. So building a tool database for a company has become a lot faster.

Agathon installed WinTool in

their CAM department, the foreman's office, the job planning area, the tool setup area, and on all PCs on the shop floor so that the information can be accessed everywhere. New tool data is only recorded by a small group of qualified people. Power users are the programmers and tool presettters.

Up to this day, Agathon is satisfied with their choice because WinTool Inc. continued to develop the software. In the early stages of using WinTool, Agathon ordered many custom software extensions. Today, all of the requested functionality has been integrated in the WinTool standard package.

Reto especially praises the precision and compatibility of WinTool to exchange data with all other systems. These include their CAD/CAM system from Mastercam. It creates precise tool assembly DXF graphics that shows all tool details including measurements. At Agathon however, the worker at the tool presetter prefers to complement the graphics with additional tool values from the database.

As of now, Reto does not require any additional changes in the tool database. As one possible improvement, he might start using the Win-



Tool report designer to display a job-specific selection of data on one screen. Because some tasks require different information the standard data layout of the software is not always the optimum. For some jobs workers process different technical and administrative tool details and WinTool organizes the tool data by usage type in folder tabs. With the report Reto can get all the needed data on the first page so that less browsing is needed and the formatting can be arranged perfectly.

At Agathon, the implementation was considered a success, because they were able to keep the production workflow as desired and WinTool adapted seamlessly to it. They definitely improved productivity because



**Reto Mägli managed the WinTool implementation from day one.**

of standardizing processes and increasing speed.

Reto Mägli's advice for CNC

manufacturers that are considering introducing tool management software is: "First one has to be clear about what should be accomplished with such a database application. The objectives must be specified. Do I really need to manage inventory, which Agathon did with SAP already? Does the storage layout or tool tracking need to be improved? Do I need a better way to compile purchase requests and process them? Do I want to control entire production work flows? To my knowledge WinTool is the most extensive solution that no doubt can do pretty much anything in CNC data management. But the maximum of possibilities is not always the ideal solution, especially not if it overloads the first step."

**Markus Schmid**

## Profile

### Agathon

Since 1918, Agathon has manufactured innovative machine tools and standard elements. The core business of the 3rd generation family-owned enterprise is the production of special machine tools for precision grinding such as inserts or die-plates or for normal elements for linear, rolling or ball guiding, centering systems, guide bushes, ball cages, die sets etc. which are supplied typically to machine makers, fixture system makers and injection mold machine makers. Agathon designs and produces their machines almost completely on their own in their own production plant in Bellach, and employs 220 workers and 20 apprentices.

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