



PRODUCTIVITY MANAGEMENT

Precision at Work

**TECHNOLOGY-ORIENTED
TOOL MANAGEMENT**

The technical requirements demanded of companies are increasing day by day. We at TCM help you to meet this challenge. By using the most powerful tools and technologies, TCM is a guarantee for the most efficient production possible. This is what we understand with Cutting Edge Productivity – because it is at the cutting edge that you earn your money – now and in the future.



CUTTING EDGE PRODUCTIVITY

THERE IS A TOOL FOR SUCCESS –
TCM INTERNATIONAL

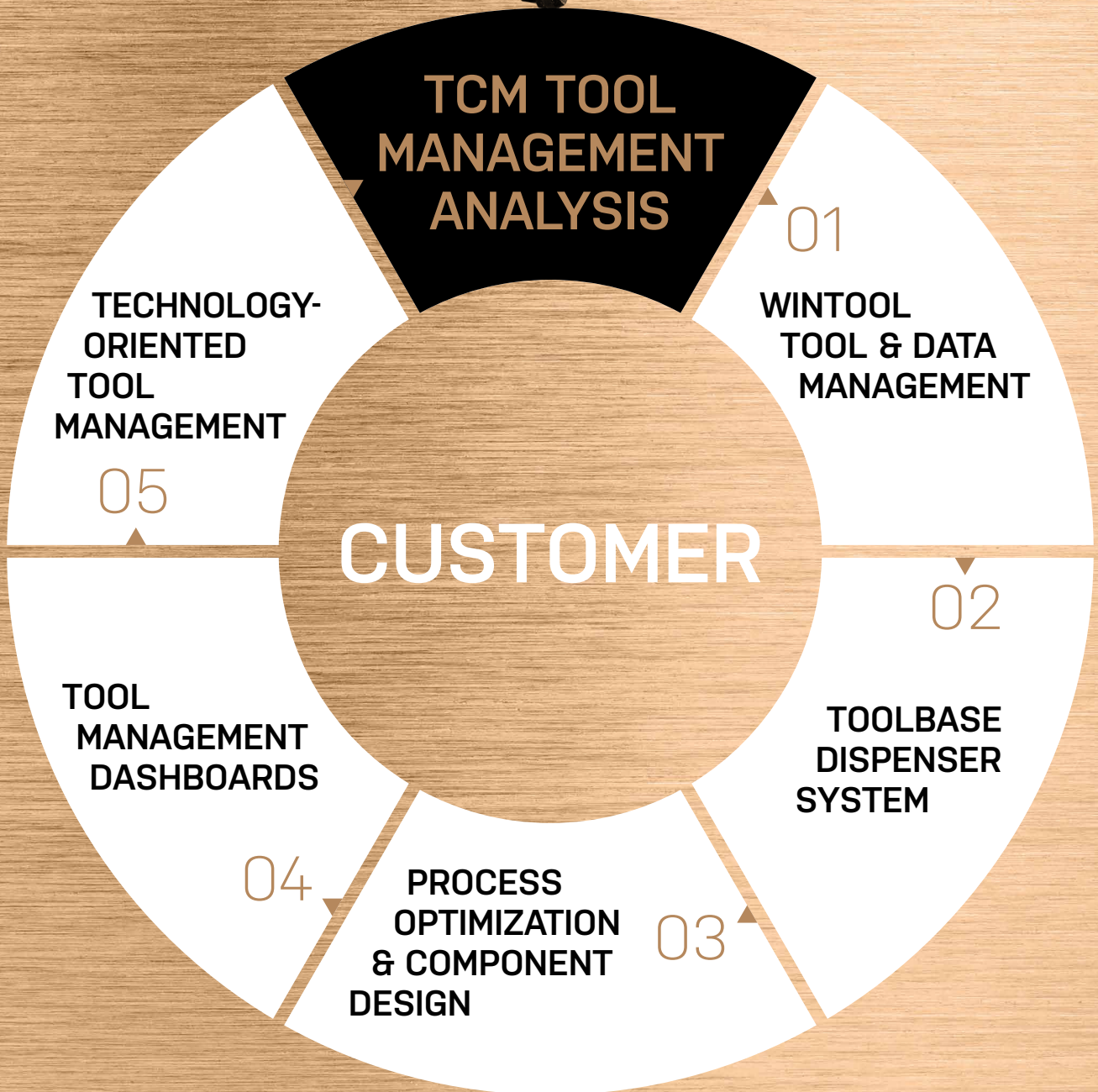


TCM makes your production efficient!

"Technology-oriented and manufacturer-independent Tool Management guarantees our customers long-term competitive machining and set-up processes."

Markus Temmel
TCM International, CEO

**TOOL MANAGEMENT
MADE BY TCM**



TECHNOLOGY-ORIENTED TOOL MANAGEMENT

SUSTAINABLE VALUE CREATION MADE EASY

With its process-oriented products and services, TCM International guarantees success through the entire value chain of your production.

The leading edge that pays

TCM's technology-oriented tool management guarantees customers a leading edge through technology. This advantage results from both the interplay of continuous process optimization and the competent support provided by our tool experts, as well as from the use of the best tools available on the international market.

To achieve this, TCM offers a modular service model with 6 levels:

- LEVEL 01** - Tool acquisition

- LEVEL 02** - Tool acquisition
- Grinding

- LEVEL 03** - Tool acquisition
- Grinding
- Toolbase Dispenser-System

- LEVEL 04** - Complete TCM TOOL MANAGEMENT

- LEVEL 05** - Complete TCM TOOL MANAGEMENT
- Billing by cost per unit

- LEVEL 06** - Complete TCM TOOL MANAGEMENT
- Guaranteed productivity increase through innovative machining concepts

Advantages:

- > Tailored solution through TCM tool management analysis
- > Guaranteed, measurable cost savings via clear key figures
- > Less administration - just one contact person
- > Manufacturer independence ensures innovation
- > No capital tied up by storage costs
- > Productivity-oriented business model
- > Stable processes through many years of experience
- > Increased competitiveness



„TCM customers benefit from TCM's ability to keep up to date with international trends and innovations as a manufacturer-independent technology partner, as well as its access to skilled tool manufacturers, their products, solutions and innovations worldwide.“

Markus Temmel
CEO

TOOL MANAGEMENT ANALYSIS

MAKE FULL USE OF TOOL POTENTIALS



Organization

- > Unique tool cycle
- > Transparency in stocks & costs
- > Optimum inventory levels
- > Clear key figures

Purchasing

- > "Best Price" system
- > Use of consignment warehouses
- > Advantageous framework agreements
- > Economical number of approved suppliers

Technology

- > Evaluation of current tool technology
- > Comparison to the state of the art
- > Integration of ongoing innovations
- > Complete manufacturer Independence
- > Correct cutting parameters
- > Optimal design of new product launches

Digitalization

- > Visualization of the core software systems used
- > Checking data quality and consistency of master data
- > Testing of simulation capability (CAM relevant)
- > Connectivity level of relevant system modules
- > Illustration of system gaps
- > Sketching a target image for optimal support of value-adding machining processes
- > Recommendation for action to gradually increase the level of digitization

Recognize improvement potential – exploit profit. That is efficient TOOL MANAGEMENT by TCM.



Demonstrate possibilities

With the TCM Tool Management Analysis we can determine your optimization potential. We not only raise the status quo, but also work out the opportunities for improvement in the areas of purchasing, organization and tool technology.

Evaluate & decide

These benchmark results provide a quick and comprehensive assessment of your potential for improvement. After two to three days, our TCM experts will give you an overview of possible approaches, new business models and development opportunities.

"Because of decades of worldwide Tool Management Experience, we offer our customers comprehensive Know-how in the entire machining environment."

*Kevin R. Dworak
Global Sales Manager -
Tool Management*



01 Status quo

- > Situation analysis within the organization
- > Comparison to the market

02 TCM Analysis

- > Tool technologies
- > Tool volume & stock Levels
- > Data quality & system networking
- > Organization (processes)

03 Advantages

- > Guaranteed cost advantages
- > Integrated processes
- > Increased competitiveness

TOOLBASE DISPENSER SYSTEM

LESS CONSUMPTION, MORE PRECISE APPLICATION

01 ECONOMICAL

Optimized stock levels, no search times and quick access reduces costs and increases productivity.

02 FLEXIBLE

Individually configurable system for each application.

03 FAST

Easy operation, multilingual menu navigation, and individual product groups ensure quick access for all operators.

04 SECURE

Toolbase® combines the highest level of secure, efficient, automated access and order management.

05 CLEAR

A well-organized tool assortment, traceable withdrawals and current stock information provide the full overview in every area.





THE TOOL FOR TOOLS

Reduce your article consumption and create supply security and transparency for the resources you really need in your production environment. In addition, you successively reduce the diversity in your warehouse – this is Organization 4.0

Win-factor for productivity

Toolbase dispenser systems convince through their reliability and versatility. A tool assortment organized by Toolbase® and a secured output are the basics of every economic production.

Automated & efficiency optimized

Automated processes ensure tool availability and avoid expensive downtimes. The sophisticated, ERP-compatible Toolbase software ensures lean structures and efficient workflows.

Advantages:

- > Permanent availability of tools
- > Modular design (expandable & combinable)
- > Easy integration into the system landscape

- > Manufacturer independent
- > Computer-controlled access protection
- > Cost savings up to 40%



"Toolbase eliminates inaccuracies in stock and guarantees exact tracking of consumption data. In addition, Toolbase takes over the data maintenance, replacement and issues the articles for you. Toolbase avoids waste and greatly reduces search times by cost-intensive personnel. Furthermore, routine operations are automated and implemented with "point of use" provision – with the least distance and with the greatest transparency of all processes."

Stefan Schauer
Product Manager Toolbase

WINTOOL TOOL AND DATA MANAGEMENT

INTEGRATED SYSTEM FOR GREATER SUCCESS

01 ORDER IN PRODUCTION

WinTool is the fastest way to create a high-quality resource library for your company, so that planners, programmers, purchasers, and machine operators can collaborate and improve efficiently and safely.

02 TOOL MODELS TRUE TO THE ORIGINAL

WinTool has developed the leading complete tool generator. It's child's play to assemble and name a new tool with multiple components and generate a dimensioned graphic with a precise 3D model. Everything interactive and CAM ready!

03 CAM INTEGRATION

The 3D tools created by WinTool are imported directly into your CAM program with exact cutting data. For the operation, WinTool automatically creates setup lists and archives and releases all files in a controlled manner.

04 ONLY THE CORRECT PROGRAMS

For each CNC operation, WinTool manages all associated production data in the network. Program versions, instructions, setup lists and CAM files are all easily stored and remain findable, traceable and without confusion.

05 OPTIMAL PROVISIONING

You want to find out whether a cutting insert is available and how much wear it has so far? WinTool gives you complete transparency, since all your data - from the program to the cutting insert - are stored in a database and can be evaluated.

06 MINIMAL SET-UP TIMES

Tool standardization and order-specific set-ups need to be organized properly. With WinTool, the complete tool cycle is managed and net lists are calculated for machines including an availability check.

07 LEAN RESOURCE STOCK

Resources and supplies are reliably managed with WinTool. Exact stocks and proofs of use are easily and semi-automatically monitored and articles are provided in just the right amount, at the right place and at the right time.

08 INDEPENDENT & INTEGRATIVE

WinTool is the only independent solution provider for a tool management and cooperates with all manufacturers of tools, measuring devices, CAM systems etc. This assures you maintain your independence and flexibility towards your suppliers.

INCREASE YOUR COMPETITIVENESS

WinTool is the successful solution in tool and data management for the integrated management of tools, resources, machine programs, master data and processes.

Tool-Management for winners

With WinTool you simplify your production processes, reduce production costs and increase productivity. You benefit from shorter programming and set-up times, reduce stock and the variety of tools and work with organized and integrated manufacturing documentation.

Advantages:

- > Uniform master data
- > Greater machine availability
- > Increased setup efficiency
- > Higher programming efficiency

- > Transparency in production
- > Availability matched to production orders
- > Controlled CNC system environment
- > Project ROI <1 year



"With WinTool you are always on the winning side and avoid unplanned machine downtime, unproductive work steps, redundant data, tool overflow or dead stock. And the best: in less than a year, the investment is amortized!"

Roger Ineichen
CEO WinTool



POWER BI TOOL MANAGEMENT DASHBOARDS

WITH ONE SYSTEM EVERYTHING IN VIEW

All relevant information transparently in the browser for optimal control of tool management processes - implemented in Microsoft Power BI.

Digital Assistance System for Industry 4.0

The DASHBOARDS provide all essential data to ensure optimal control regarding costs, consumption, produced quantities, inventories, plan/actual analyses, etc. in a transparent and user-friendly manner.

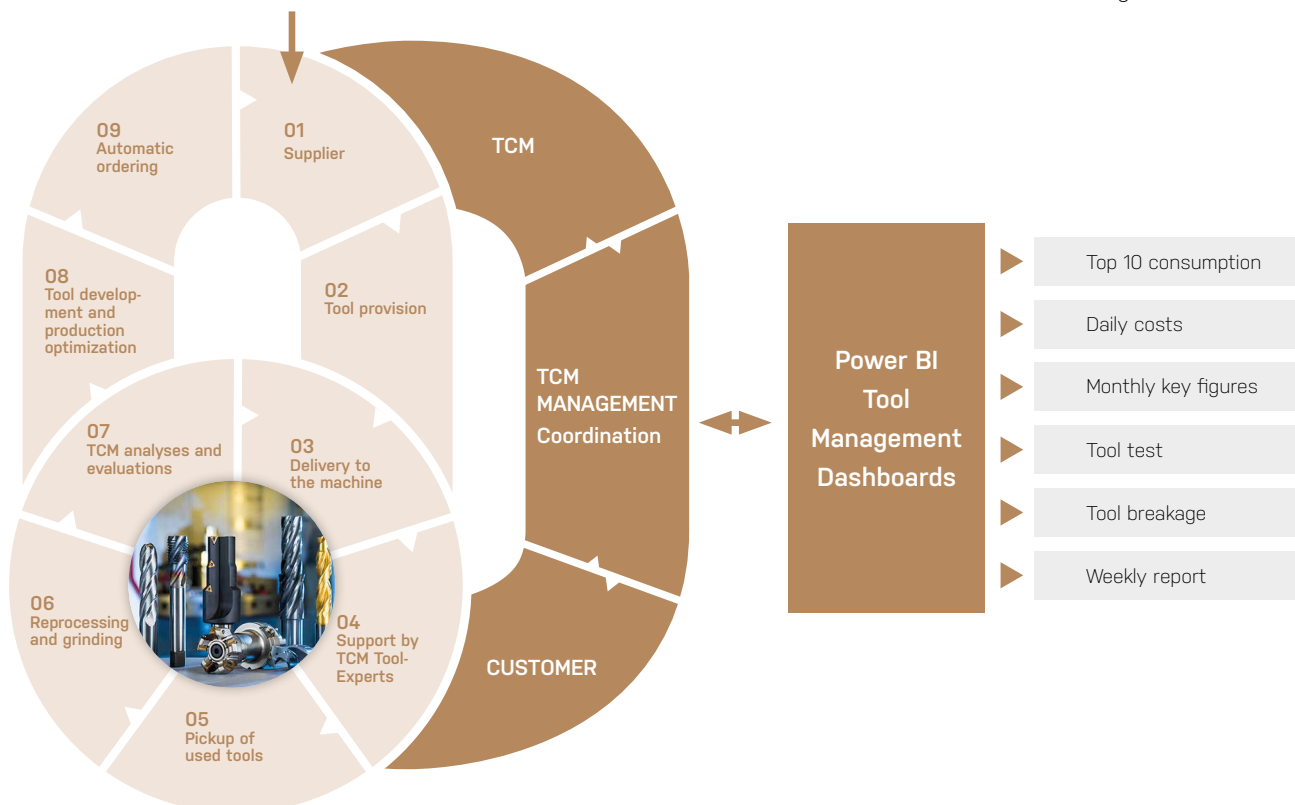
Central data hub in Power BI

Power BI Tool Management Dashboards provide a centralized view of all data relevant to material flow control and are therefore fully integrated into the tool management cycle: Replenish or remanufacture tools, daily, weekly and monthly reports, top 10 consumption, tool

tests, etc. can be processed by the tool manager directly via the Power BI Tool Management DASHBOARDS.

Benefits:

- > Executive and analytical dashboards to answer the questions "Where are we? Why are we standing here?"
- > Compact information display
- > Warehouse controlling at a glance
- > Possibility of detailed view into the desired level
- > Predefined templates for "best practice" dashboards
- > Quick evaluation of the "Important 6"
- > Daily updated cost knowledge per product
- > One-time, consistent master data management



ENGINEERING SERVICES - COMPONENT DESIGN



TCM AS A COMPLETE PROVIDER

Due to ever smaller batch sizes, combined with ever shorter lead times in the market, more and more production companies are looking for a complete supplier who is able to deliver tools, CNC production programs, as well as clamping fixtures, quickly and competently from a single source.

Process reliability & cost control

Due to many years of experience in dealing with special tools, own tool design and CAM programming in house, as well as being a competent partner in fixture construction, TCM can carry out these kinds of projects in close cooperation with the customer.

The focus here is on productivity, process reliability in the production of the components, permanent cost control as well as the perfect reconditioning of the tools.

Benefits:

- > Tools, fixture, and CNC program from a single source.
- > Short lead and project times
- > Calculable costs
- > Tool costs (CPU)
- > Machining time/cycle time
- > Digital twin
- > Many years of experience and competence
- > On-site support
- > Consistent documentation

Engineering Complete Projects

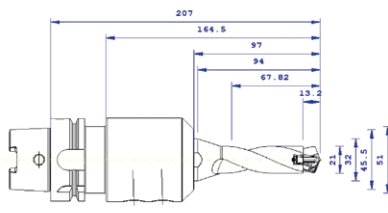
< 10 weeks

Digital Engineering

100% digital



- > CAM programming
- > Jig and fixture design
- > Machining concept
- > Tool design



- > Standardized tool data (ISO/DIN)
- > Digital tool list
- > Illustration of complete tool + parts list
- > CAM simulation capable

TOOL GRINDING & TRADE

NO. 1 IN TOOL SUPPLY

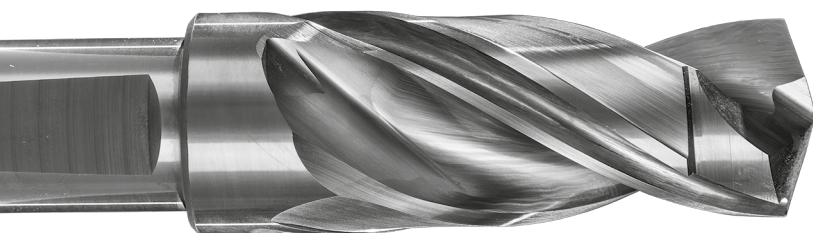
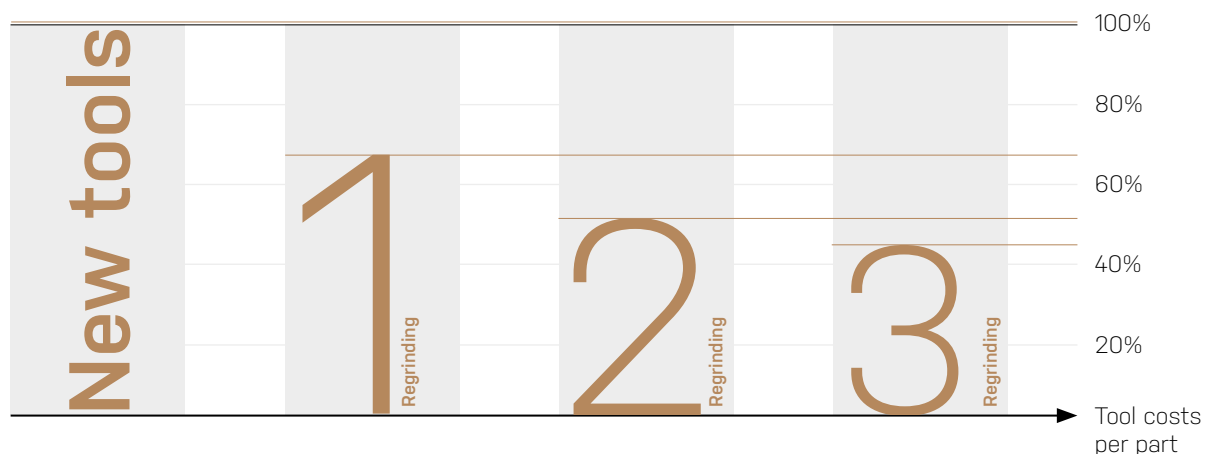
TCM is the first point of contact for tool supply. For more than 25 years we have been supplying customers with tools in the field of machining production. In addition to the Austrian market, we supply Slovenia, Croatia, and Poland with tools for machining production.

Make tools perform again

The high-precision and multiple regrinding of all cutting tools under Tool Management was from the beginning for TCM, one of the most important factors for reducing tool costs. To this end TCM operates several grinding centers worldwide, equipped with modern 5-axis CNC grinding machines as well state-of-the-art tool measuring devices. This is how we permanently assure our customers absolutely consistent quality in their production.

Good tools, greater productivity

TCM continuously designs, grinds, and coats special tools to enhance our customers' productivity. Through Cybergrinding technology, tools can be both visualized and optimized immediately after programming on the computer. Many of these tools are developed, tested, and optimized in-house, in combination with TCM design, TCM grinding center, and our own machining laboratory, until they are ready for mass production.





"Regrinding of the tools is carried out according to original regrinding instructions of the manufacturers or according to TCM regrinding instructions prepared by TCM Tool experts. Thus, we guarantee the same tool life and machining results as for new tools."

Oswald Scheibenbauer
Manager Engineering



Four separate grinding centers

TCM International operates service centers in the following countries. These service centers also provide, besides the TCM Tool Managements, external customers with cutting tools, services and consulting in all areas of machining technology and process optimization.

- > Austria
- > Hungary
- > Poland
- > China

Expansion of TCM Reconditioning Portfolio – Focus on Gear Cutting and PKD Tools

Through extensive investments in grinding machines and measurement technology, TCM can recondition various types of gear cutting and broaching tools.

Hob cutters, cutting wheels, as well as hobbing cutters in both HSS and solid carbide versions, are continuously re-ground, coated, and measured to the highest quality standards. Each of these tools is delivered with a measurement protocol.

In the field of broaching tools, round broach pins of various diameters and lengths are reconditioned.

Due to the increasing production of non-ferrous metal parts, TCM constantly designs and utilizes PKD diamond special tools. Given the high cost of acquiring PKD tools, swift reconditioning is of particular importance. PKD tools are only re-ground in cases of minor wear. In instances of more significant wear or cutting-edge breakage, the worn PKD cutting edges are replaced with new ones and then laser-processed to meet the required dimensions.

TCM places the utmost importance on the critical aspects of edge rounding and deburring of tool edges. These processes are conducted after the tools have been ground and significantly impact their service life. During the final, custom-tailored coating of the tools, TCM collaborates closely with industry leaders in this field.

"TCM places the greatest emphasis on the crucial area of edge rounding and deburring of tool edges. These processes are carried out after the tools are sharpened and significantly impact tool life. During the final, individually tailored tool coating process, TCM collaborates closely with industry leaders in this field."

Oswald Scheibenbauer
Manager Engineering

PRODUCTIVITY MANAGEMENT



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