

# From Users for Users



Seeing beyond

Starrag AG / Rorschacherberg / Switzerland

**New-generation  
ZEISS PRISMO CMM  
cuts measurement  
program time by 74%**



**starrag**

# ZEISS-Starrag cooperation takes quality assurance in aerospace applications to new heights

**In a ZEISS pilot project hosted by Starrag, the new-generation ZEISS PRISMO 7/12/7 fortis equipped with the high-performance package ZEISS CMM Acceleration Mode for Aerospace Applications combines accuracy and productivity in breathtaking style. Benefits include a remarkable 80% reduction in the rotary table axis definition time and superlative interaction with ZEISS CALYPSO software.**

Headquartered in Rorschacherberg, Switzerland, the Starrag Group manufactures machining centers for production solutions that handle turbine blades, blisks, and more, with a major focus on aerospace applications. Precision powers the aerospace industry, and accuracy requirements have grown far stricter in recent years. In serving the expanding and widely varying demands of its global customer base, Starrag must perform high-efficiency measurements that deliver very fast, highly accurate, and easily reproducible results.

The pilot project thus saw the new-generation ZEISS PRISMO 7/12/7 fortis being deployed in a vital and highly visible role in the quality lab – and Starrag was duly wowed by the results. Starrag’s Head of Quality Management, Roland Ziltener, sums it up neatly: “In the field of measuring technology, accuracy is usually slow. But with ZEISS PRISMO 7/12/7 fortis equipped with ZEISS CMM Acceleration Mode for Aerospace Applications, the opposite is the case.” As Ziltener notes with a smile, his customers are always “fascinated and somewhat shocked” at how this new-generation CMM combines accuracy and speed on a whole new level.



**“ Speed and accuracy were always a contradiction for us before we installed the new generation of ZEISS PRISMO fortis.”**

**Roland Ziltener** Head of Quality Management, Starrag Group

**A fresh approach to rotary table applications**

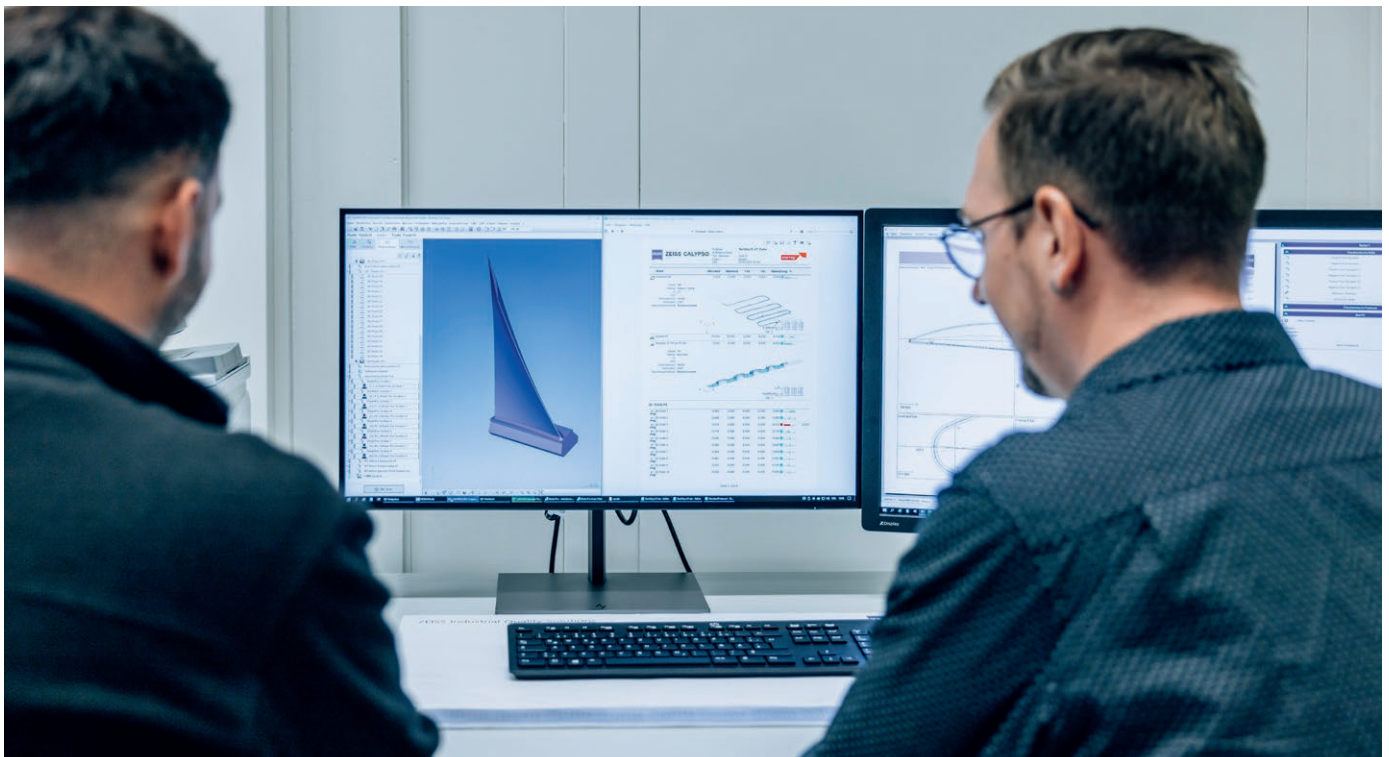
The new-generation ZEISS PRISMO 7/12/7 fortis boasts a highly dynamic rotary table for sharply reduced measuring times, while the ZEISS Acceleration Mode for Aerospace Applications package combines a pair of rotary table measurement options known as ZEISS VAST Rotary Table (ZVR) and ZEISS VAST Rotary Table Axis (ZVRA). These promote a fresh approach to rotary table applications by boosting the rotary table positioning speed and axis definition speed respectively. Indeed, ZVRA cuts the axis definition period from 60 to 12 seconds – a remarkable 80% time saving on a process performed for each workpiece at Starrag. The faster positioning speed also ensures that fewer styli are needed, making measurement both faster and more flexible. In terms of support, ZEISS and Starrag exchanged geometry data and worked together to identify effective contour-checking solutions that are better at handling difficult geometries. ZEISS has also made significant efforts to provide Starrag with training and support in real-world environments.



*Faster positioning speed with the new rotary table of the ZEISS PRISMO 7/12/7 fortis*

The implementation of this new solution on site went smoothly, with Starrag also drawing on its years of experience using ZEISS CALYPSO software. Not only does this ensure easy programming of contours and more, Ziltener reports that it was “not at all difficult” for his team to get to grips with the latest software version and the various upgrades featured in the new ZEISS PRISMO 7/12/7 fortis. Moving beyond basic good/bad analysis of parts, Starrag relies on high-quality feedback to

determine machine performance: ZEISS CALYPSO responds to these requirements by delivering highly accurate and repeatable results while providing the data and graphics that support further development. In promoting the easy interpretation of results, it also aids Starrag’s interaction with its suppliers by offering an “excellent basis for discussion” of deviations and solutions.



*ZEISS CALYPSO software enables immediate and thorough analysis of results*

**Measurement now 74% faster with sufficient accuracy**

Chief among the many benefits of the pilot project is the remarkable increase in productivity, with Ziltener observing that Starrag can measure more parts in less time “with the same accuracy we had before.” The clearest indication of this productivity boost is the 74% reduction in the amount of time required by Starrag to perform its standard turbine blade measurement program. While the program once took 4 minutes 30 seconds and was focused on repeatability, it now takes a mere 70 seconds to return accurate and reproducible results. This in turn gives the company greater flexibility in terms of what to measure and on which workpieces – and the large number of turbine blades and cuts awaiting measurement mean the benefit is multiplied. Ziltener states that, in combining the two seemingly contradictory advantages of sufficient accuracy and stunning speed, the new-generation ZEISS PRISMO 7/12/7 fortis “never fails to amaze” end customers on site.

The new ZEISS PowerSaver feature also “makes a massive contribution to energy saving” and sustainability at Starrag, a benefit rendered all the more important by the ongoing energy crisis. Easy to use and only needing to be programmed once, ZEISS PowerSaver cuts consumption to zero during user-defined downtime periods and runs seamlessly in the background. In terms of occupational safety, which is a major point of emphasis at Starrag, the new laser-based system for

automatically reducing speeds in the event of a hazard and subsequently increasing them offers the ideal combination of safety and performance. Not only does this enable safe loading and operation, it does not present a distraction to the user and is considered very pleasant to work with. Finally, numerous ergonomic upgrades such as a slimmed-down control panel with a dedicated holder improve workpiece handling and the overall accessibility of the new generation of the ZEISS PRISMO Family.

ZEISS PRISMO 7/12/7 fortis and ZEISS CMM Acceleration Mode for Aerospace Applications set up Starrag for continued long-term success in quality assurance. After all, the company is not only concerned with collecting results for a given workpiece – as Ziltener says, “we must be able to interpret the results and data” and “discuss these with our internal and external partners.” This pilot project solution helps them to do just that, as ZEISS CALYPSO software promotes the easy documentation and visualization of results even by non-experts. The multi-layered approach implemented by ZEISS CALYPSO makes these features accessible to a wide array of users while also providing more in-depth options for those with greater expertise. In short, this pilot project has already helped Starrag take its quality assurance to new heights. And the company’s intensive and reciprocal partnership with ZEISS offers plenty of additional potential for the future.



*The highly ergonomic control panel is one of many user-friendly upgrades with the new ZEISS PRISMO Family*

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