Issue 09/2024

The Quick Read

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EFW expands services with CAMO approval

Our joint venture Elbe Flugzeugwerke has recently attained EASA Continuing Airworthiness Management Organisation (CAMO) approval. With this achievement, EFW can now offer global airworthiness management and technical services for both passenger and freighter aircraft to customers, as well as fast, cost-effective aircraft registration during lease transitions, providing customers with enhanced convenience and operational uptime.

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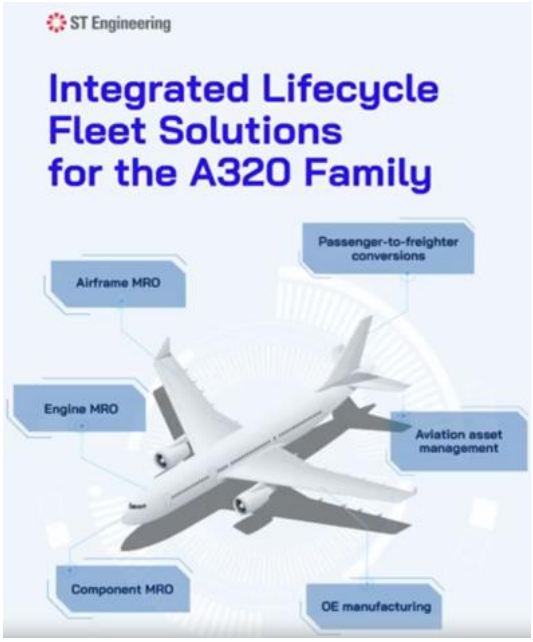
Integrated lifecycle fleet solutions for aircraft operators



From design and engineering, original equipment manufacturing (OEM) to maintenance services and leasing, we support fleet operators and OEM partners with comprehensive, integrated solutions that span practically every stage of an aircraft's lifecycle. These offerings are best exemplified by our wide range of capabilities for the Airbus A320 family, a mainstay for narrowbody aircraft operators.

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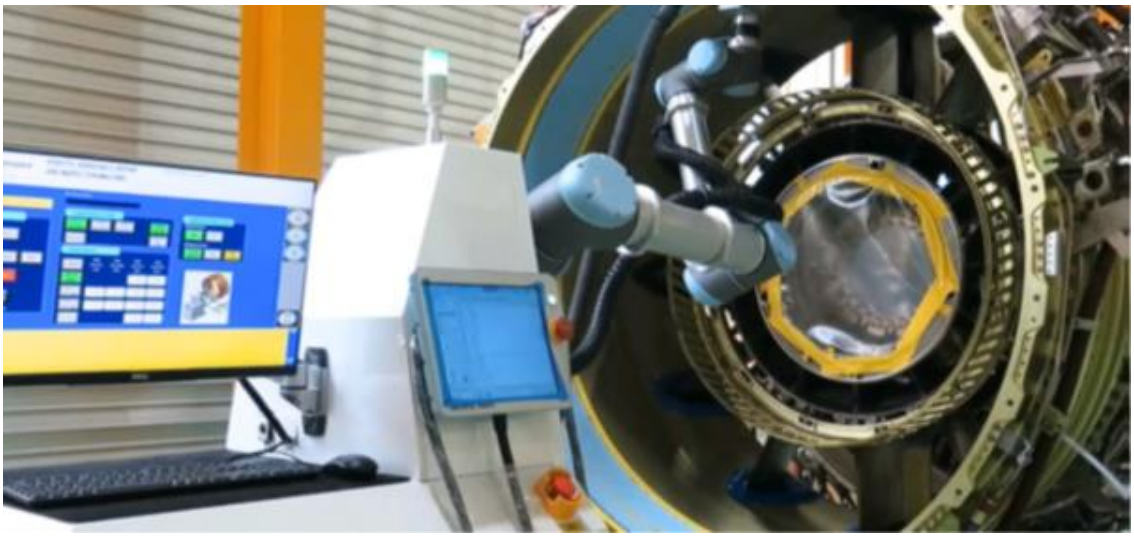
Featured Article

Transforming engine MRO through robotics and automation

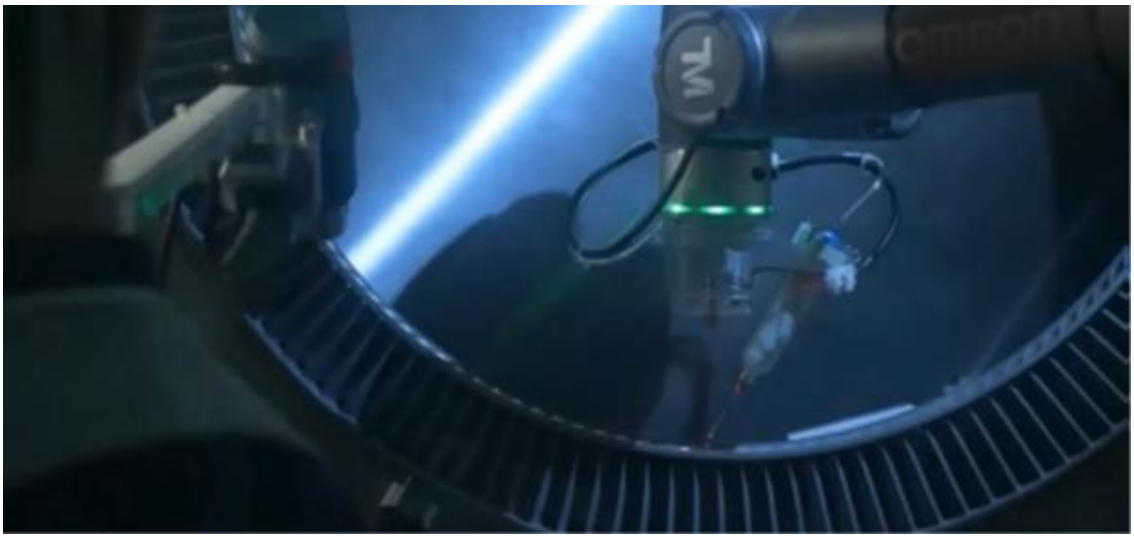
According to Oliver Wyman's Global Fleet and MRO Market Forecast 2024–2034, cost management and labour shortages are some of the top disruptors expected to impact the global aviation industry over the next five years. To address these challenges, our engine MRO business has been leveraging robotics and automation to execute complex repairs, elevate workplace safety and increase overall productivity.

Boosting Quality Assurance

Quality assurance in aircraft engine maintenance reduces the risk of malfunction in critical components and ensures the redelivery of safe and reliable aircraft. To increase our process's efficiency and quality, we have been utilising robotics to enhance precision and streamline processes.



For instance, we have installed automated fan frame abradable machines in our shopfloors for the removal of worn abradable seals on engine fan frames. This increases precision in removing old seal materials and ensures a higher level of accuracy and reliability in the process, significantly improving the quality of maintenance for engine fan frames. This shift in workflow also resulted in a 500% increase in productivity, brought about by a reduction in manhours.



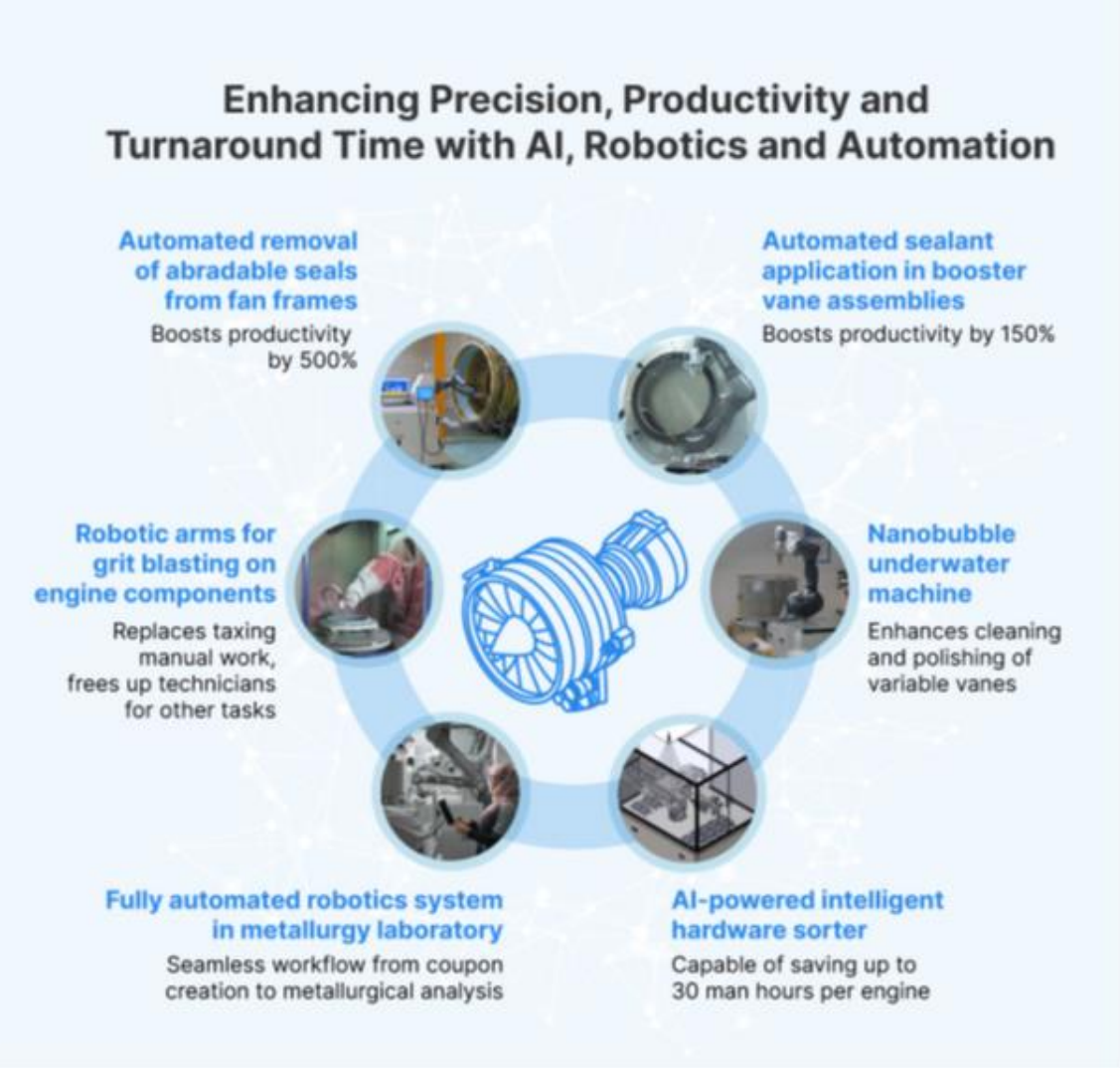
Similarly, we enhanced the reliability of our sealant application process for booster vane assemblies by leveraging automated sealant application machines. The automated process achieves high levels of

accuracy by leveraging on advanced imaging technology, delivering not only improved quality assurance but also boosting productivity by 150% due to a reduction in manhours..

Enhancing Safety at the Workplace

By enhancing traditional processes with automation and robotics technology, we have also been able to improve workplace safety and health on the shop floor.

We have replaced traditionally manual grit blasting with a process which utilises robotic arms and rotating turntables to automate grit blasting on engine components, allowing the technician to operate the system remotely from outside an enclosed blasting room.



We are also leveraging nanobubble underwater technology in place of manual polishing for the servicing of compressor stator vanes to eliminate exposure to hazardous dust, a byproduct of the repetitive polishing process. We use automated robotic arms to immerse these vanes into a water tank, which then generates nanoscale bubbles. The bubbles clean and polish the vanes at the same time, resulting in a more efficient workflow with higher-quality outcomes.

These applications are part of our continuous journey to better harness the benefits of technologies. We are committed to exploring new areas where technology can help our business to propel forward, where human ingenuity and advanced technology work together to redefine excellence in aviation MRO.

Have a suggestion? Engage with us here!

ST Engineering · 540 Airport Road · Singapore 539938 · Singapore