

# A521 Fan Track Boring Machine



**With the ever increasing need for Turbo Fan engine efficiency in mind, Torus Group developed the A521 CNC Fan Track Boring machine. The machine produces an accurate fan track bore in a fraction of the time of any other system whilst at the same time requires fewer personnel for set-up and operation.**

Torus' A521 Fan Track Boring machine features a CNC control of the cutting path, negating the need for expensive fixed profile templates prone to inaccuracy and wear. Additionally, profiles can be easily edited from fan track profile CAD files giving unprecedented flexibility, dramatically reducing lead time and costs for new profile variants.

The integrated measurement system is utilised for pre-machining inspection, optimizing the cutting sequence to give ultimate machining efficiency. Of course, the same system is also used for final inspection, producing a measurement report tailored to the end user's requirement to include:

- > Full profile scanning.
- > Gauge point measurement.
- > Full radial scanning.

The reports can be networked for full traceability.



## Features:

Capable of machining partial fan tracks (maybe required at overhaul) and full fan tracks (typical to engine production). There is also the facility to custom cut profile diameter to match the fan set.

Integrated vacuum extraction system removes dust directly from the cutting tip, leaving the working environment free from contamination, meaning that the cutting operation can be conducted in the engine build area.

Transportable through the factory once folded away into its compact position on the wheeled base.

All interlocked guarding is integrated within the trolley, and once machine is located, is quickly & easily positioned.

Loading of the machine on to the engine is effortless; the pneumatic manipulator is balanced to give the boring bar an almost weightless feel. This of course, also ensures there are minimal external forces on the LP shaft or through the fan case during machining.

## Benefits to your business

- > Can be adapted for various tasks.
- > Equally suitable for those with some or no CNC programming knowledge.
- > Utilises modern CNC technology.
- > Pre-programmed simple menu display and ready configured keyboard on control cabinet.

[Click here to view the video](#)



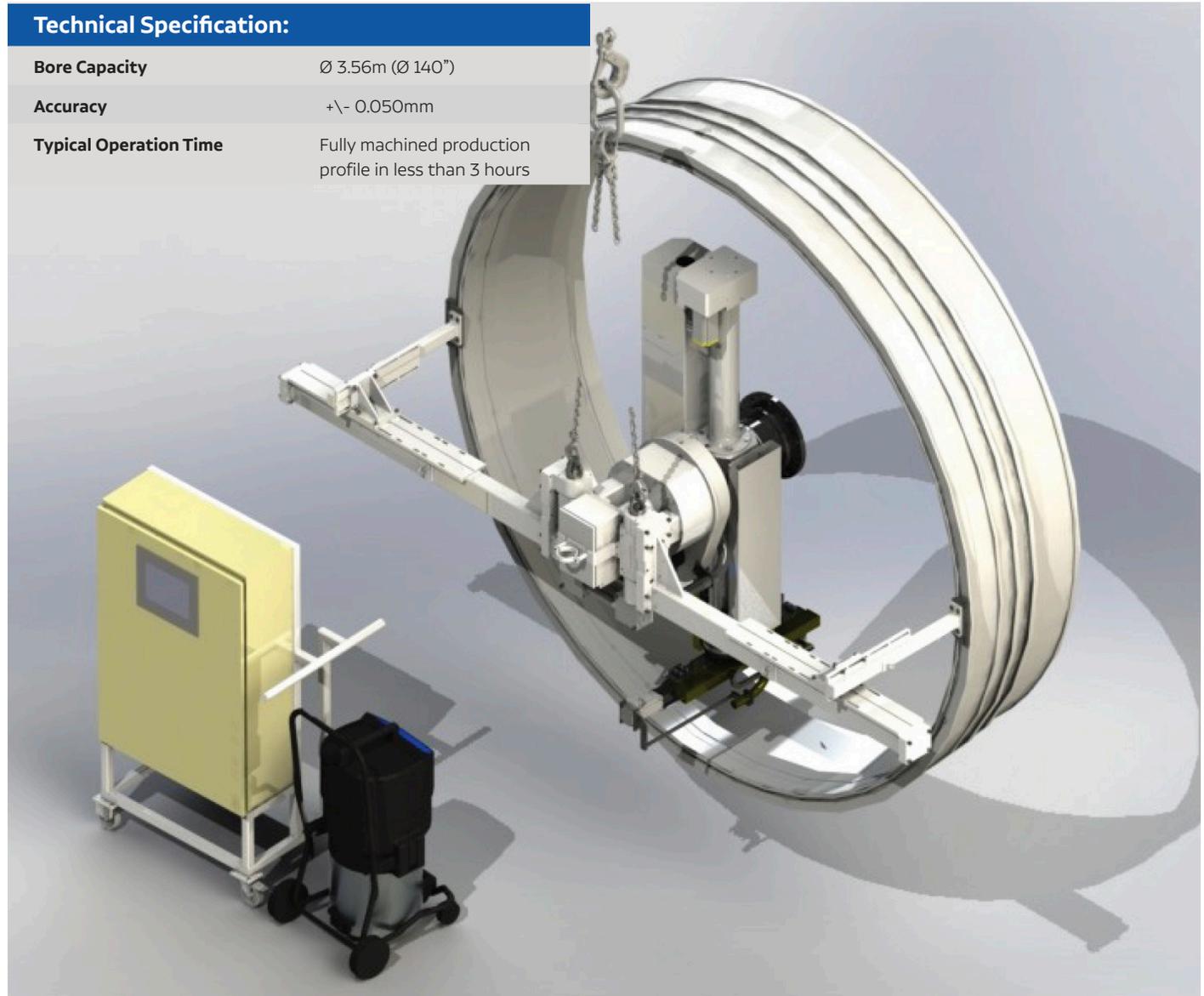
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## Introducing the A521 Fan Track Boring machine Lite...

Torus Group developed the A521 Fan Track Boring machine Lite with the aero engine overhaul and maintenance sector in mind. It has a space saving design and can easily be airfreighted between shared facilities if required. The system carries the same machining features and capabilities as the full version, (measurement capability is an option) but requires the use of the end users crane systems to load on to the engine. Stabiliser arms are fastened to the fan case front flange during operation.

### Technical Specification:

<b>Bore Capacity</b>	Ø 3.56m (Ø 140")
<b>Accuracy</b>	+/- 0.050mm
<b>Typical Operation Time</b>	Fully machined production profile in less than 3 hours



### Final Measurement Graph

