



Cygnat Texkimp's 3D Winder is a robotic filament winding machine designed to produce complex, non-linear – or curved – parts in varying cross sections and with a high degree of precision.

This high-speed machine combines rotation and fibre-feed in one mechanism that is robotically moved around a static mandrel, winding as it goes. The 3D Winder is capable of winding carbon fibre at a rate of 1 kg/min or more, which means it can wind an aircraft spar, for example, in minutes or create a 150-mm diameter part by laying down roughly 7.5 m of fibre in every revolution.

For more information, contact us:

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Filament Winding for:

- Dry Fibre - with or without online resin impregnation
- Tow preg
- Slit tape

3D WINDING SYSTEMS

Specification can be varied to suit any requirement

Process	Filament winding of multiple tows onto a rotating or stationary mandrel
Materials / Applications	Carbon, Aramid, Glass, Thermoset resin systems, with or without metering
Typical Speed	Typical speeds of up to 60m/min, when winding hoop layers dependent on part geometry
Unwinding	Unrolling or over end feed of fibre into the placement head
Features available	<ul style="list-style-type: none">• Full driven control of fibre tension for constant fibre tension between hoop and helical courses• Stationary creel minimising head loads• Multiple end fibre feeding• Online spreading of the tow• Fully metered resin application• Exotherm alert• Integrated data logging• Integrated with winding software• Automated handling of wound components through downstream processes• Application of slit tape or tow preg• High visibility threading system for easy inspection - eliminates misthreading