Prepreg slit with Traverse winding



Optional off-machine winder for TPS prepreg slitter to rewind narrow slit tapes with widths such as 1/8", 1/4", 1/2", 1". Bobbin traverse system is adopted. Each tape tension is controlled individually by TSUDAKOMA's original tension control technology. Liner film unwinder is employed to rewind thermoset prepreg tape, used on the Automated Fiber Placement (AFP).





Line up

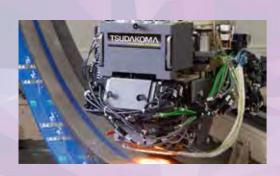






Automated Fiber Lay-up Machine

TFL is a Robotic AFP (Automated Fiber Placement) from TSUDAKOMA, which can accurately lay narrow slit tapes on complex shapes. High productivity has been achieved by individual control of multiple slit tapes. At the same time, the compact head allows it to reach narrower spaces. You can apply it to complex shapes of work-pieces such as channel forms, which were difficult to produce with a machine.

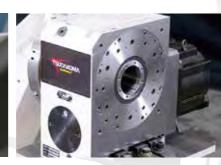




TFL uses thermoset prepreg slit tape. 16 spools can be installed in the creel box as standard. Those tapes are delivered to the head at optimized tension control. TSUDAKOMA's tension control technology was originally developed for textile machines. High quality slit tapes can be produced using our TPS prepreg slitter.

A traveling axis for Robot and a positioner can be combined in this system. TSUDAKOMA's rotary tables with BallDrive® mechanism (original latest driving technology) are employed as a positioner, which support high speed and precise positioning.





Auto Edge Welding Machine

TAW is composed of two machines. The cutting machine cuts thermoplastic UD tape accurately in 45° or 90° as required. It is an important process to maintain edge alignment of the bias UD tape produced by this machine. On the welding machine, a cut piece is positioned, aligned perfectly by robot and camera analysis. Then, piece edges are welded to make a continuous sheet. High melting point matrix such as PEEK can be handled.







Profile Moulding Machine

The machine to produce CFRTP long profile. UD tapes and bias UD tapes which are produced by the TAW machine to be delivered from the creel into the press area. It continually runs pre-form, heating, press, cooling, and can produce CFRTP long profile to moulding. By using a TXM machine and original bias tapes, you can manufacture a CFRTP profile with a flexible ply design.





