INTRODUCTION
The ALTEC Veneer Lathe Control System is the most advanced, user-friendly control system available for veneer lathes. By leveraging the built-in power of Delta RMC100 motion controllers, ALTEC LatheTools™ software provides you with an unprecedented setup and diagnostics tool for in-depth understanding and control of the entire peeling process. Our controls are equally proficient at controlling Ball Screw Carriages, Hydraulic Carriages and Precision Roller Screw Carriages.

The ALTEC Veneer Lathe Control System is easily configured to control any or all parts of your veneer lathe and can be expanded to control the entire peeling process. ALTEC LatheTools™ software provides a common window for both operators and maintenance/technical personnel.

LATHE OPERATOR FUNCTIONS
— Select lathe peel profiles based on product.
— Manually offset peel thickness (thick/thin), bar gap (tight/loose), back-up roll position (tight/loose) and knife pitch (point/heel).
— Adjust core size, carriage retract offset, round-up complete offset, etc.
— Monitor alarm status and alarm history.
— Monitor servo axis status.
— Assign and monitor lathe downtime.
— Monitor shift report data.

MAINTENANCE/TECHNICAL FUNCTIONS
— Graphically develop lathe peel profiles such as knife pitch, bar gap and back-up roll position as a function of block diameter.
— Save and restore sets of profiles as “products”.
— Adjust axis position setpoints, speeds and accel/decel rates.
— Configure servo axis tuning parameters.
— Monitor axis performance with real-time graphical display of target position, actual position, target speed, actual speed and drive output.
SYSTEM DESCRIPTION
The ALTEC Veneer Lathe Control System consists of a Base Package and individual Control Modules for the control of specific parts of the lathe (i.e. carriage, back-up rolls, bar gap/knife pitch, lathe spindles, XY charger, etc.). The Base Package consists of an Allen-Bradley Control Logix PLC system. Control Modules consist of industry standard Delta RMC100 Motion Controllers and PLC I/O modules.

THE BASE PACKAGE INCLUDES:
— A free-standing NEMA 12 enclosure.
— An Allen-Bradley ControlLogix PLC system.
— A flat panel touch-screen for the lathe operator booth with ALTEC LatheTools software.
— A desktop computer with ALTEC LatheTools software for graphical development of profiles, real-time monitoring and diagnostics.

CONTROL MODULES INCLUDE:
— Carriage Control.
— Back-up Roll Control.
— Knife Pitch/Bar Gap Control.
— Lathe Spindles Control.
— XY Charger Control.
— Catch-up Tray Control.
— Downtime and Shift Reporting.

CONTROL SYSTEM BLOCK DIAGRAM