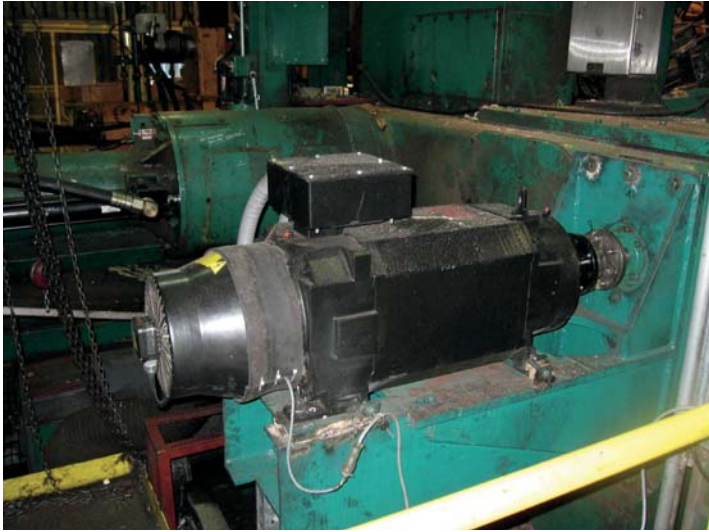


LATHE CARRIAGE DRIVE SYSTEMS

LEADING-EDGE LATHE CARRIAGE CONTROLS



INTRODUCTION

ALTEC offers complete Lathe Carriage Drive Systems for both mechanical and hydraulic carriages. Carriage Drive packages can include actuators, servo motors or valves, servo amplifiers and controls. Our Carriage Drive Systems integrate seamlessly into the ALTEC Lathe Control System and can also be integrated into existing lathe control systems.

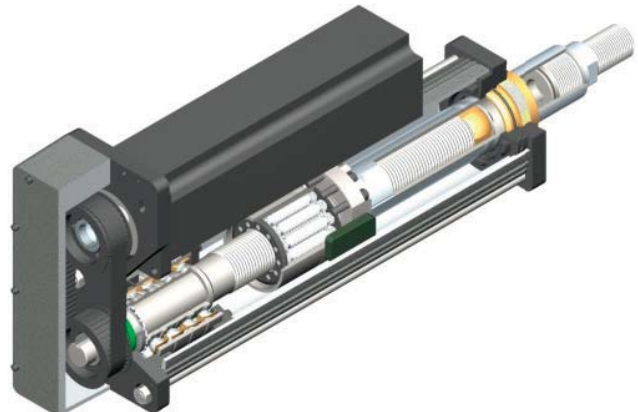
We offer solutions for traditional hydraulic cylinder and mechanical ball-screw arrangements as well as state-of-the-art planetary roller screw systems.

ALTEC has the engineering capability in-house to properly design, specify, supply and commission all mechanical and control components.

When combined with the ALTEC Lathe Control System, thickness tolerance as low as $\pm 0.002''$ has been achieved on Southern Yellow Pine.

FEATURES

- High-resolution, high-bandwidth control.
- Veneer thickness tolerance down to $\pm 0.002''$.
- Absolute position feedback.
- Skew detection and correction.
- Built-in wear detection for ballscrew systems.
- Easily integrated into existing lathe control system.
- Seamless integration with ALTEC Lathe Control System.
- Easy installation.
- Short commissioning time.

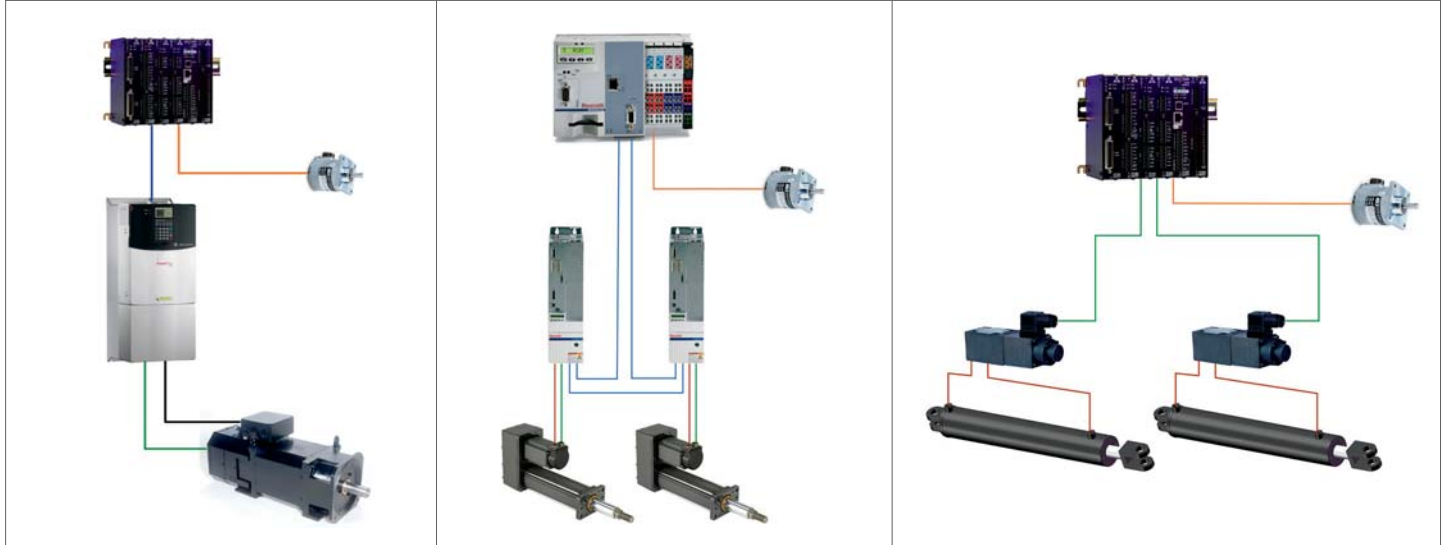


AC SERVO ROLLER SCREW ACTUATOR

SYSTEM DESCRIPTION

ALTEC Carriage Drive Systems are available for Planetary Roller Screw, Ball Screw and Hydraulic carriages. Both the Planetary Roller Screw and Ball Screw arrangements use the latest in AC Servo and motion control technology. Hydraulic carriage drives use the latest in hydraulic servo valves and motion controllers.

For the ultimate in control, choose the Planetary Roller Screw arrangement. Planetary roller screws offer the highest precision resulting in the tightest peel thickness tolerances possible. Planetary roller screw drive arrangements also have far fewer moving parts and wear points than traditional ball screw arrangements resulting in greatly reduced wear and maintenance and far greater lifetime.



AC SERVO BALL SCREW CARRIAGE

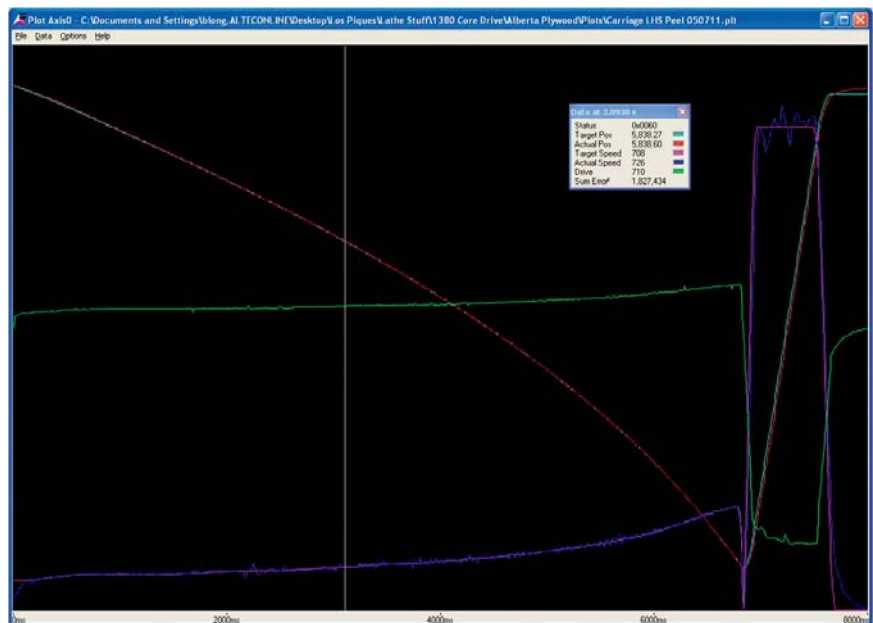
AC SERVO ROLLER SCREW CARRIAGE

SERVO HYDRAULIC CARRIAGE

BASE PACKAGE

The base package varies depending on the type of carriage but generally includes:

- Free standing NEMA 12 enclosure
- State of the art motion controller
- Electric drives for AC Servo systems
- Interface to existing control network
- Carriage encoder
- Left and right carriage position feedback (if not installed)
- Documentation



TYPICAL CARRIAGE DRIVE PERFORMANCE