

Automatic Press Roll Coastal Machinery

At a Glance

- **Project:** Automatic Press Roll
- **Company:** Coastal Machinery
- **Location:** Portland, Oregon
- **Challenge:** Run the mill at high speeds without damaging the material.
- **Solution:** RMC101 motion controller was selected to control both position and pressure on a single axis.
- **Benefits:** Eliminate need for operator and measure thickness of the wood.



Summary:

Coastal Machinery developed the first automatic press roll control system for use with planer machines in the forest products industry. Key to the high performance of the new press roll is the hydraulic motion controller supplied by Delta Computer Systems, Inc.

Challenge:

Typical press rolls for planer machines are operated by two hydraulic cylinders, one cylinder applying the pressure while an operator manually controls the position of the other. While running at high speeds, these rolls would often damage the material, forcing the mill operators to make difficult tradeoffs between maximizing board feet of lumber and maintaining quality. The new press roll was to have a single cylinder, as well as increasing production speed without sacrificing quality.

Solution:

The RMC101 motion controller from Delta Computer Systems was able to meet the challenge, especially because of its unique ability to control both position and pressure on a single axis. The motion controller sends signals to a Bosch NG6 servo valve, which can adapt more easily to varying thicknesses of boards.

Benefits:

Not only are the press rolls automatic, eliminating the need for an operator, the system can now measure the thickness of the wood. This allows the machine to detect thin boards, which cause handling problems in the lumber transfer mechanisms. The electronics can also momentarily adjust roll height to adjust for the thin boards.

“We installed the system in a mill and were showing results two to three hours later the same day.”

—Joe Butz, Coastal Machinery