



Maxson Automatic Machinery Company

Proportional Type Automatic Tension Control

An automatic tension control system integrated into the roll stand design allows for brake compensation as the roll decreases in diameter without Operator adjustment. The device eliminates the need to thread the web through load cell tensioning rolls or dancer roll type mechanisms, while still providing the same level of precise web tautness that is required for accurate cut offs on a sheeter. The simplicity of the design lends itself to being retrofitted to existing roll stand installations.

The system includes a tension controller, an air filter, an electronic-pneumatic converter, a sensor collar, and a proximity sensor. The sensor mounts on the roll stand's arm and monitors the number of rotations, detecting the proximity of the sensor collar. This signal is fed to the tension controller, which reduces the diameter. For the maximum roll diameter, the controller sends the maximum voltage to the electro - pneumatic (E-P) converter. As the roll diameter reduce, the voltage lessens proportionately. The EP converter translates the voltage to air pressure. As the voltage decreases, the air pressure fed to the roll stand brakes is reduced.

An added feature of this design is the ability of the tension controller to monitor a preset "low roll diameter" condition. When a low roll diameter is reached, a signal is sent to the sheeter drive to slow down to a minimum line speed.

70 Airport Road Westerly Rhode Island 02891, Phone 401-596-0162, Fax 401-596-1050, E mail sales@maxsonautomatic.com