



Automatic Roll Loading System

CURRENT CHALLENGE

As production speeds increase, so does the demand on the labor force to keep up with loading and unloading material rolls. This can lead to increase costs associated with labor rates and workplace-related injuries.

JOA SOLUTION

Joa's automatic roll loading system (ARLS) technology automates both the roll-loading and expired roll discharge process. This allows for roll preparation on the floor level and eliminates the need for roll-loading personnel on the machine equipment platform.

LEARN MORE

Contact your sales representative or email marketing@joa.com.

1. Fully Automatic Roll Loading Roll Loading/Expired Roll Discharge

- The ARLS senses when a turret runs low on material pulls the empty roll core to the back spindle of the ARLS unit.
- The ARLS then rotates and loads the new material roll from its front spindle onto the turret, pushing the new roll with its unloader.
- The unit then moves away from the turret, releasing the empty core roll into the material well.
- ARLS moves to pick up a new material roll to be used when the next turret needs reloading.

2. Reduce Labor Costs No Personnel Required

- The robotic loading system replaces manual labor positions, allowing businesses to reallocate labor costs to other areas.

3. Safe for Operators Restricted Safety Area

- Restricted safety area on machine equipment platform (MEP), equipped with a badge reader limiting access to only authorized personnel.

Roll Prep on Lower Level

- No personnel required on the same level as the unwinds, all roll preparation takes place on floor level and the ARLS move between levels to load/unload the material.

Reduce Work-Related Injuries

- Lower risk of lifting-related injuries for personnel.

4. Eliminate Human Error Splice Tape Inspection

- The ARLS system performs an inspection of the splice tape to ensure that the materials are in the proper orientation for the unwind. If there is an error in the splice tape set up, the ARLS will put the roll back and send an alarm to notify the operator of the error.

5. Increase Efficiency 24-hour Simulations

- Joa personnel can accurately simulate the required load cycles for a 24-hour period. This helps to determine potential efficiency issues and the optimal location for each material type in the material well.

