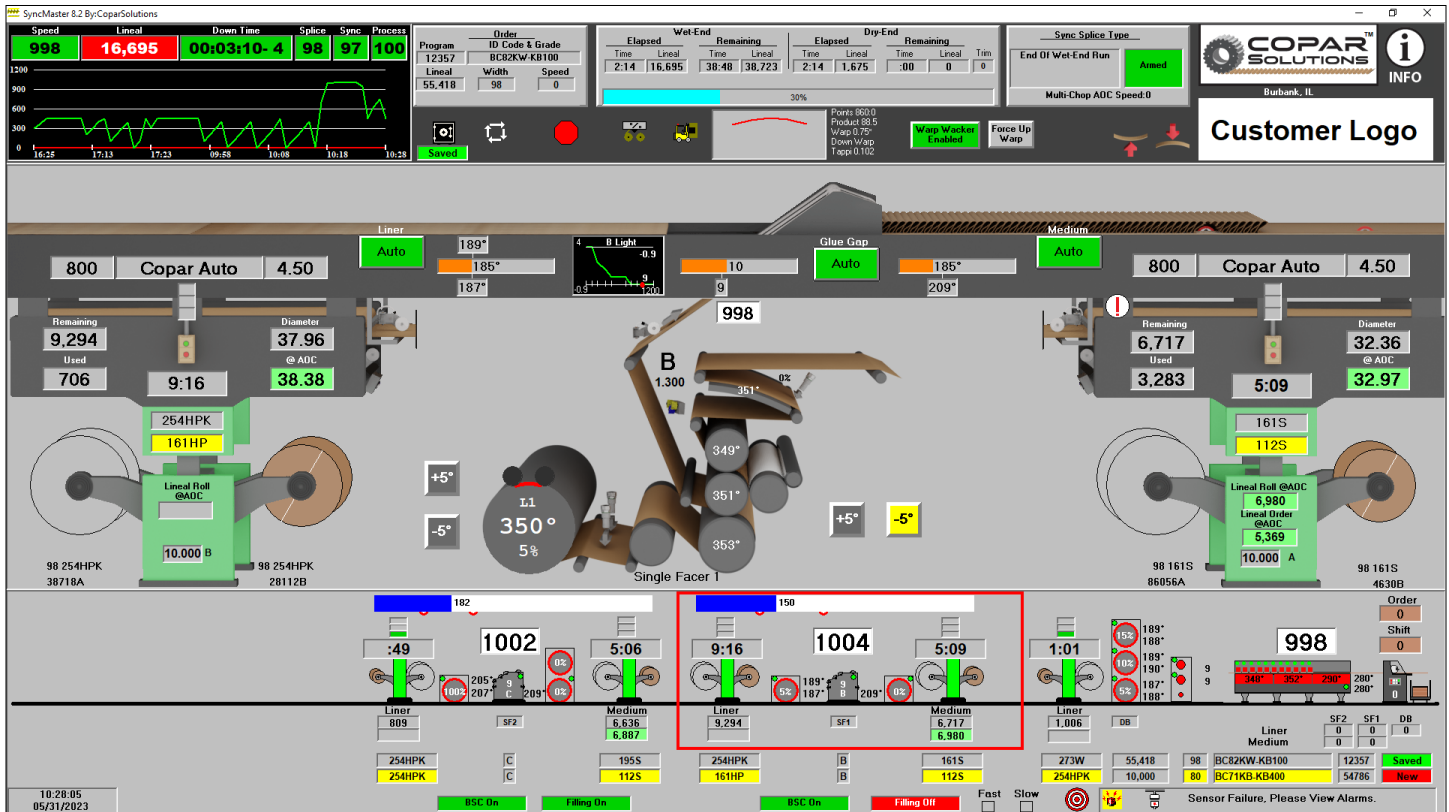


SyncMaster 8.3 Screen Upgrades & PLC Retrofits

Upgrade your existing Copar control with the new SyncMaster 8.3 synchronized splice system. An upgraded system will be easier for the operator to use, with many more features, and simplifies troubleshooting for maintenance. Multiple upgrade packages are offered to satisfy virtually all Copar Sync Splice systems that are still in service.



Upgrade packages are available for for virtually all existing Copar Synchronized Splice Systems:

- CSSC 3-6:** Replace bus-based architecture system with new PLC controls, new 23" operator touchscreens, and upgraded operator touchscreen software.
- CSSC 7:** Replace bus-based architecture system with new PLC controls, new 23" operator touchscreens, and upgraded operator touchscreen software.
- SyncMaster 8:** New 23" touchscreens with upgraded operator touchscreen software.
- SyncMaster 8.3:** Upgraded operator touchscreen software.

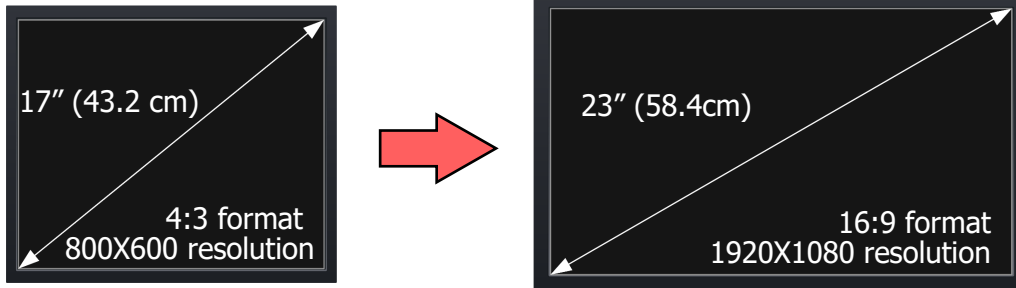
- 23" (58.4cm) 16:9 format 1920X1080 high resolution touch screens
- New tools and features are included in all upgrade packages
- Allen Bradley Compact Logix Series L33 ER Processors
- Retrofits are designed for an easy installation process using existing enclosures and hardware
- Control cabinet components are removed and returned to Copar



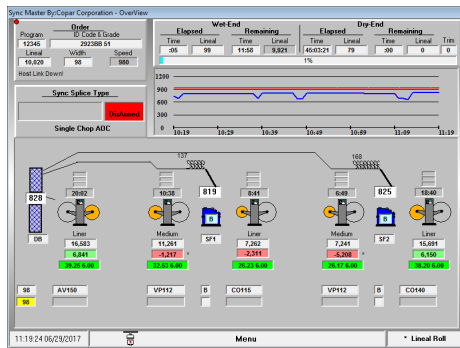
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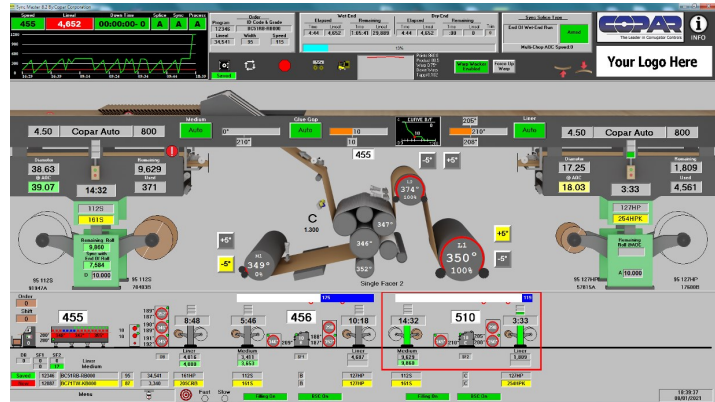
Touchscreen Upgrade



Screen Software Upgrade



1995 to 2016 Screen

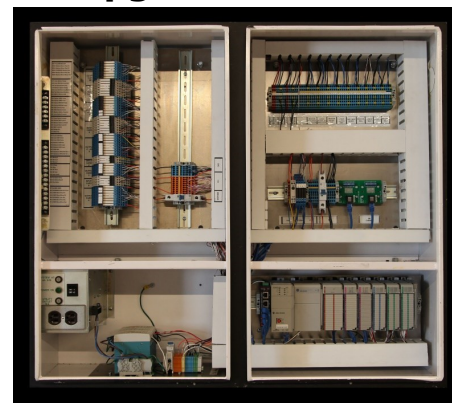


Updated CSSC 8.3 Screen

CSSC 3, 4, 5, and 6 PLC Upgrade

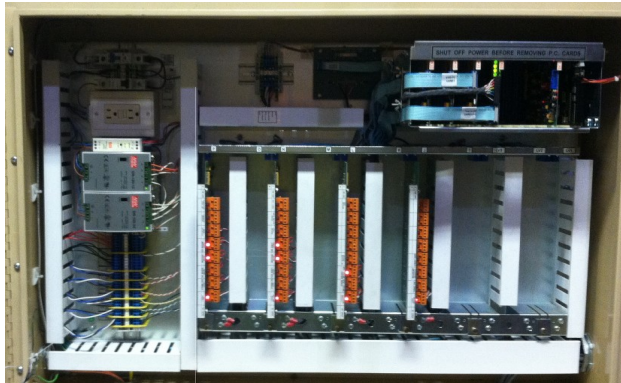


1980s to 2006 Bus-based System

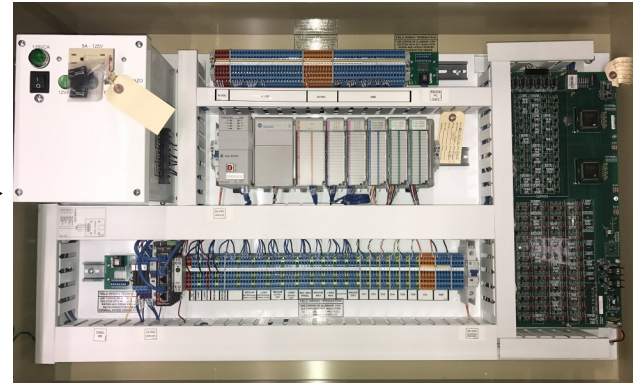


Upgraded 8.3 PLC-based System

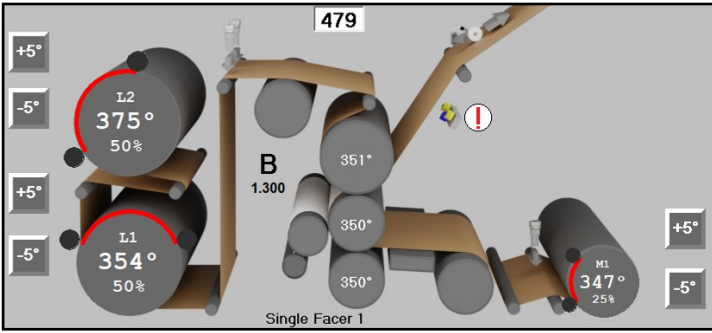
CSSC-7 PLC Upgrade



2006 to 2016 Bus-based System

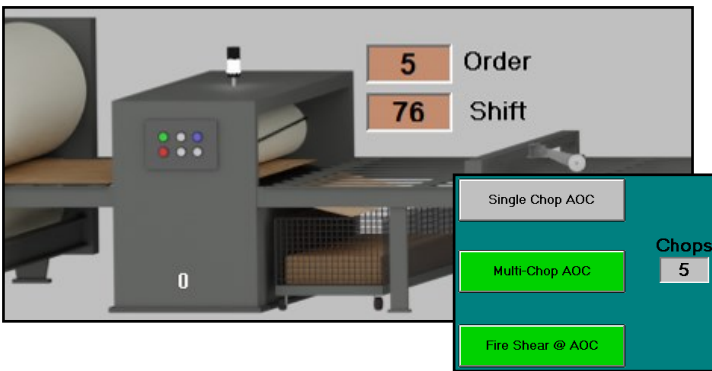
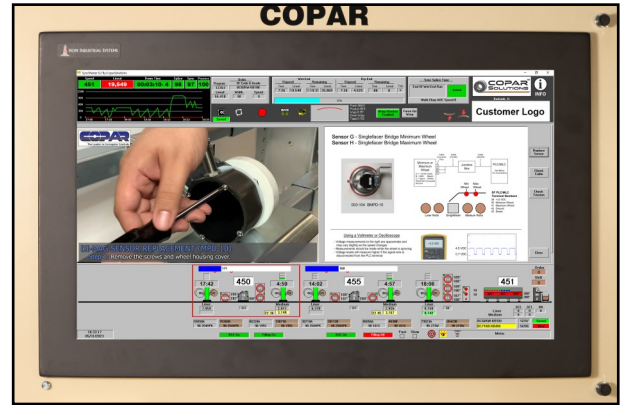


Upgraded 8.3 PLC-based System



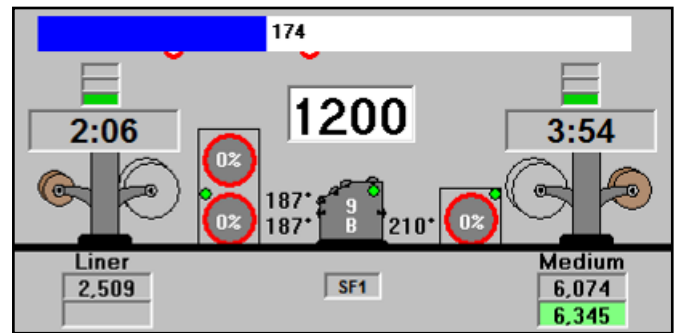
- Realistic singlefacer layouts and paper paths help new employees learn the machines quickly.
- Systems with process control have animated wrap arm positions.
- Every Copar sensor is displayed on-screen in their approximate locations.

- If a sensor issue is identified, onscreen exclamation marks (!) alert operators which sensor is failing. Pressing the alert directly opens the sensor alarms screen.
- Troubleshooting and repair videos are integrated right into each screen.



- Shear waste is displayed and recorded to system logs for each order and shift.
- Operators may select single or multi-chop when arming for a sync splice order change.

- Real-time bridge level display (blue bar)
- Splices are displayed in real time as they travel through the machine
- Bridge Safety-Net proactively prevents bridge break outs



- All upgrade packages include a Wireless Troubleshooting Kit, consisting of a wireless access point and 2 wireless tablets.
- The tablets help maintenance troubleshoot issues, right on the machine.
- The tablets may be used to check board wheels, temperature pyrometers, or other Copar sensors.

Benefits:

- Dependable Upgrading to Allen Bradley PLCs will ensure many years of service. Many CSSC 3 through 7 components are no longer available to Copar.
- Faster Processing Speeds Uses the latest AB PLC technology which communicates 1000 times faster than old bus systems.
- Customizable New features can be easily programmed for an ever changing industry. Older systems use legacy software (no new features).
- Larger Screens Includes 23" 1080p HD touch screens with animated machine processes.
- Easier To Use Realistic looking machine graphics with fewer hidden screens to click through simplifies operations.
- VPN Access The PLC I/O can be monitored directly from Copar and program changes can be made remotely if necessary.
- Improved Diagnosis Solving issues has never been easier with robust system logging. Black Box (Flight Data Recorder) continuously records all PLC I/O and operator screens, 24/7, at a rate of 4 times per second to help trace elusive issues after they have occurred.
- Troubleshooting and Repair Tools Animated videos are built right into each operator screen for quick resolutions when a problem arises.
- Wireless Troubleshooting Kit Included in all upgrade packages, the wireless tablets help maintenance resolve problems quickly, with wheel and sensor diagnostics right at their fingertips.
- Automatic Critical Alarms Messages are automatically sent to Copar Engineers when critical PLC situations occur so they may be resolved quickly.
- Operator Emails to Copar The built-in email function allows operators to relay problems or questions directly to Copar right from the touchscreen.
- Improved Paper Break Detection The Bridge Safety Net feature proactively prevents paper breaks when it detects critical bridge level conditions.
- Improved Splice Accuracy
 - Sync splice alignment is improved with continuous calculation all the way to the splice.
 - End of roll splicing with caliper grading for precise diameter calculation.
- Improved Bridge Management
 - Better compensation when two rolls expire close together (paired splicing).
 - Redesigned bridge validation and balancing with dual water mark detectors.
 - Variable bridge feature is include to help combat reverse warp.
- New Shear Features
 - Operator selectable shear control. Single or multi-cut grade changes for less waste.
 - Shear waste is displayed and recorded for each order and shift.
- Medium Roll Options Support for optional dual-arch (laminated) and split medium splicing.