

2-MINUTE OVERVIEW

SRM Controls Upgrade Reduces Downtime Risk for Manufacturer



Features/Benefits Include:

- Provided standard components for reduced parts leadtime and cost
- Reduced operator time in hostile environment
- Provided better diagnostics through fault details and recovery, historical trending, and “open” control code

Automated storage and retrieval systems (AS/RS) are ideal when a product demands a hostile working environment for work in progress and/or storage. A Manufacturer needed both a dark, high temperature, and humid environment for the equipment that handled its photographic paper. The coating to produce photographic paper includes the precious metal silver. An imperative of the paper's production was downtime could not exceed the viability of the coating's batch lifespan; beyond it, batch loss had enormous financial consequences.

To reduce downtime risk and escalating maintenance costs, the Manufacturer chose to modernize the storage and retrieval machine (SRM) controls. Additional project goals were to provide flexibility, improve diagnostics, and reduce the worker's time in the hostile environment. To achieve this, the Supplier's solution included upgrades to the SRM controls, positioning feedback, ac drives, and the host interface; importantly, adding a remote graphical human machine interface (HMI) was also part of the scope of work.

Due to the dark operating environment, the Supplier had to pass special testing requirements for any light emitting component. This meant SRM laser positioning was ruled out and limited the choices of other replacement components.

Through the remote HMI, operators could now issue semi-automatic SRM commands, make parameter adjustments, and map rack locations. Communication lines were run to all the SRM drives to allow operators to interrogate or get feedback from up to 4 different drive parameters. This diagnostic data was constantly updated.

Previously, the operators dealt with little SRM fault information. The updated system provided enhanced fault information and online recovery procedures. Combined with the extensive diagnostic information available on the HMI, this reduced recovery time as well as the time operators spent in the hostile environment.

Standard off-the-shelf components and modern control equipment reduced downtime and improved reliability.



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