Web Guiding Upgrade Applications

Blog Post

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Imagine running a converting operation that has multiple converting lines. Each of these lines has been in operation for at least 20 years. You have invested in many improvements to the line, but are now faced with aging web guiding systems that are starting to fail.

At first, you manage to work with the deficiencies they have. However, now the web guides are starting to fail and one by one are being placed out of operation. Worst yet, your customers are requiring better quality from your line and these aging web guides are hindering your effort to provide improved quality. So, why haven't you repaired those aging web guides?

When asked this last question most converters will answer that the manufacturer of the web guide on their line for the past 20 plus years no longer manufactures that model. Worst yet, they no longer provide spares or service to them. There seems to be only one answer: buy a new web guide… or is that so?

Web guides are made of four main components: web guide mechanism, controller, sensor, and actuator. Of these four components, web guide mechanisms are the easiest to maintain or repair.

Typically, it will require changes in bearings, rollers, mechanical connectors and fasteners to get it back in good working condition. The other three components provide the hardship to converters. These are the elements that become obsolete with time. The obsolescence of a technology means that the element is no longer manufactured, and that parts are no longer available for repairs.

Our solution is the web guide upgrade kit.

Upgrade Kit for Discontinued Web Guide Systems

An upgrade kit consists of a controller, sensor, actuator and motor driver. With these components your old, obsolete web guide comes back to life. Not only do you get more years of operation, but you also have a web guide with the latest advances in converting technology. So let's talk about the different upgrade applications available.

Upgrades of obsolete web guiding systems, pneumo-hydraulic units, and unwind/rewind web guides.

We see these old web guides all the time when we travel through the US visiting different converting operations. North American, General Web Dynamics, Arpeco, and current brands with obsolete models, are just a few of the web guides we find that are still on a line, but are not operational. The mechanism is in working condition or can be repaired, but the controller, actuator or sensor are not operational and there are no spares.

The same thing happens with pneumo-hydraulic web guides and terminal web guides for unwind and rewinds. In some cases there are no spares or services. In other cases, there are issues of product contamination, lack of precision, and costly maintenance.

The solution for all these problems is the upgrade web guide kit. You keep your web guide mechanism and we help you replace the controller, sensor, driver and actuator with a more advanced technology, all at a fraction of the cost of replacing an entire web guide system.

Read about how one of our customers used our upgrade kit and the problem it solved for them

A simple four component solution

An upgrade web guide kit will have an SCU5 controller, a WPS sensor in models with sensing ranges from 48 mm to 900mm, a motor driver and actuator. Depending on the application, you might need a mounting bracket for the actuator or a high thrust actuator to move high loads such as you would encounter in unwinds and rewinds.

An upgrade kit for these types of guides will consist of a SCU5 controller, a WPS sensor that in models with sensing ranges from 48 to 900 mm, a driver, and an actuator. These are simple to install and operate and there is plenty of documentation and videos for these applications.

Upgrading old web guides

Old web guides with electromechanical controls and actuators are fairly simple to upgrade. It will require disassembling the web guide mechanism to access the location of the actuator Of course, we will need to talk to you about the application and parameters to properly size the actuator and to give you the solution that best fits your needs. The controller can be placed anywhere on the line in a safe location for the operator. The sensor has to be close to the web guide after the exit roller of the guide. The driver can be supplied with various cable lengths to allow it to be placed in a convenient location within your converting line. As mentioned before, the installation of the mechanism requires the disassembly of the web guide mechanism. If you have a maintenance crew in your operation you can do this at your facility following our instructions. We have videos demonstrating the steps for the replacement of the actuator for several types of web guides. In any case, we also offer the service of doing the upgrade at our facility.

Upgrading a North American Webguide

Upgrades of pneumo-hydraulic web guide systems

Pneumo-hydraulic web guiding systems were required at one time because of the need of high thrust at the actuator. Now, with the advances in electro-mechanical actuators that provide very high thrusts, you now have access to a more advanced web guiding technology. No more need for hydraulic power units or pneumatic systems for sensors and controllers to actuate the web guide. No more worries about possible hydraulic leaks that can contaminate your product or create safety hazards in your converting lines. As with the upgrade of electromechanical units, the controller, driver and sensor are the same. The actuator might require a mounting bracket to install in the location of the old hydraulic cylinder. We already have bracket designs for several web guiding systems that are ready to mount. However, as in all applications we will discuss with you the application and the current model of web guide you have installed to determine the proper upgrade, including the mounting brackets.

Upgrades of terminal web guide systems for unwinds and rewind

An unwind or rewind can have a fixed carriage or a laterally shifting carriage. The fixed carriage type unwind or rewind guide will use an intermediate web guide. The web guide would only require an actuator with enough thrust to move the web. Therefore, it is only dependent on the web tension and the web speed. If the converting line already has a web guide that is not working, then a web guide upgrade kit should solve the problem.

A shifting carriage unwind or rewind requires an actuator that can handle the weight of the carriage and the maximum roll weight to be handled. This requires an actuator with enough thrust to move the carriage and roll. However, one must also consider the thrust required to change the direction of the stand with the maximum roll weight. Again, this is an application that requires discussion on the application in order to determine the best actuator for the application. Regarding the controller, sensor and driver, these are basically the same as for other upgrade applications.

Unwind guiding system with a fixed sensor and a moving idler
Rewind guiding installation with a moving sensor

If you like this post and are interested in keeping up with our developments and applications, contact us and sign up for our monthly email edition. We have tons of web guiding and monitoring knowledge that we would like to share with the converting industry. Better yet you can schedule a live demo of our product line based on your particular application.