Pressman's Toolbox: Adding horsepower to motors, controllers

Posted: Friday, May 1, 2009

Frank Bourlon

Have you ever needed more horsepower to drive your press or required a larger motor to operate your inserter?

Lack of power usually occurs following the installation of additional press units or installation of hoppers. Unless existing motors and controllers weren't upgraded as part of the new equipment, it's likely you might find yourself in a power drought.

But upgrading to a larger motor and controller isn't cheap. If you need to move from a 50hp motor to a 75hp model, be prepared to shell out as much as \$20,000 to \$30,000 for the motor and controller.

Alternatively, you can consider adding a smaller motor to the driveline in order to spread out the load more evenly. The smaller motor is usually referred to as the slave motor.

An AC inverter drive system can be used for this purpose. Normally, this approach is less expensive and easier to set up than comparable DC drive systems.

A special load-sharing circuit is also needed to make certain that the small motor does not exceed its rated capacity. A 30hp AC inverter and drive motor is approximately \$6,500, which is far less than the cost of a drive motor upgrade.

Additionally, it's large enough to provide the power needed to assist the 50hp motor cited previously.

Of course, if less power is required, then an even smaller motor and controller would fit the bill. A 15hp AC motor and controller, for example, costs about \$4,000, a bargain if it gives you the horsepower you need to operate your press efficiently.

Unit adds

If you are installing additional units to a pressline, the AC inverter drive and motor can also be used to independently drive the additional units.

By employing this tactic, you can benefit by increasing the number of configuration possibilities that might have not been previously possible.

Adding units or folders to uneven floor heights, setting units at right angles to the existing pressline or adding stacked units without a drive shaft to an existing driveline are some of the possibilities.

Bottom line? Stitching additional horsepower to an existing press doesn't have to be expensive.

Frank Bourlon is the executive and training director for the Newspaper Production and Research Center. He can be reached at <u>nprc@flash.net</u> or 405.524.7774.