Automatic label printing application

The automatic label printing system from Schelling increases output for single line saws and angular plants if all parts have to get an individual label.

Conventional method

Often labels are applied to positively identify cut parts. Typically the label printer is located after the cut line at the cross aligning fence of the saw. Labels are printed in real time and are dispensed by the printer for manual pickup. The operator removes the label and applies it to the appropriate part. Consistent innovations and improvements of panel saws have dramatically improved the output of panel saws. Especially saws with two feeders that can cut two different sizes at one time increase output dramatically. If it is required to place a label on each part, the operator will be overwhelmed by the complexity and volume of labels that need to be placed onto parts; hence he has to stop the machine frequently to keep up. Therefore, the theoretical output of the highly efficient saw cannot be reached.

Types

Cut-to-size saws (fh 4, fh 5, fh 6, fh 8)
Cut-to-size plants (ah 6, ah 8, ah 9)

Sizes

330/430/580
Automatic loading machines

Optimized work method

Schelling has developed an automatic label printing system for automatic loading panel saws and cut-to-size plants. Labels will be applied to the panel in the infeed area, while the previous pattern is being processed in the saw. The location of the label on the part can be programmed (depiction 1). If a part is turned 90 degrees in the pattern, the label will be turned accordingly. Additionally, every label placed will be checked via a control scan.

Therefore, all parts are already labeled as they come off the saw. Handling two different parts that come off the saw at the same time is absolutely no problem; therefore, no capacity reduction is experienced due to labeling.

The functional description of a cut-to-size saw with automatic push infeed and with automatic label applicator is as follows:

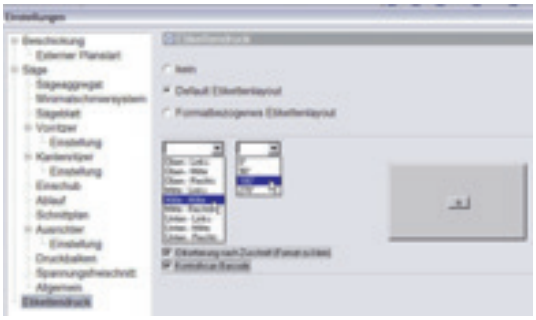
Functional description

The printer is stationary mounted on the side of the infeed station and dispenses labels according to the cut pattern (depiction 2). An applicator with rotating head picks up the label (depiction 3) and places it onto the panel (depiction 4). The applicator has its own X-axis and the push off carriage provides the Y-axis. Therefore, labels can be applied anywhere on the panel and in the appropriate orientation (depiction 5). Once the label is applied, the applicator moves up into its home position and simultaneously, the label is scanned and checked for proper information. Once the information is confirmed, the next label is printed and the process repeats itself until all labels are applied. Once the label process is finished, the infeed pusher pushes the panel into the saw to start the cutting process (depiction 6).

Cut-to-size saws and plants with vacuum infeed

Saws with vacuum infeed or an inventory system with vacuum carriage can process books where each individual board is labeled. This process requires the vacuum to place the panel onto the roller table behind the saw and then the label applicator applies the labels. In this configuration the applicator is mounted onto its own X/Y carriage. Once finished the vacuum places another board on top of the previous one and the process repeats itself.

depiction 1



depiction 2

depiction 3

depiction 4

depiction 5

depiction 6