



Blanking after a Paper Pulse . . .

PROBLEM: Bad counts due to incorrect blanking set-up.

Blanking is defined as upon the first instance of a newspaper sensor pulse input becoming active low the stacker software recognizes that activity as a product count and will ignore that input for a particular distance of infeed conveyor travel. With a laser newspaper sensor, the shadow and leading edge between products causes this pulse. Refer to the laser sensor document for its operation.

In selected ROP mode, press line, one inch is the distance of infeed conveyor travel blanking.

This is the simplest blanking because the press line generally has a steady lap and most newspaper sensor.

There is a couple of blanking schemes in the INSERT mode.

- As in ROP the first blanking is the leading edge blanking which in INSERT can be changed from 1 to 4 inches verses the ROP of a solid 1 inch infeed conveyor travel blanking.

Here's the reason for leading edge blanking, as before the leading edge causes a product counts to be generated. Next following the leading edge there can be loose inserts. In addition, there can be inserts within that product that have shifted creating a bumpy or paper pulse generating lump two or three inches back from the leading edge. Both situations must be ignored as a product count.

The best lap for an insert operation is 6 inches with 4 inches of blanking. Another method available is the 'Auto' blanking operation which uses the average lap as a basis and sets the blanking to one half that average. The average is made up of the last eight products lap distances with a maximum of twelve inches of lap or a maximum blanking of six inches.

- Trailing edge blanking is the next blanking scheme. This blanking is not used in the ROP mode since breaks in the product stream are rare. As might be apparent, the other end of a product can generate a product pulse either by the 'pin' holes or by a shadow produced by the edges of the pages. This only applies to a laser newspaper sensor. The laser sensor has an output that detects the open stream, which it inputs to the stacker as the 'Inhibit' input.

How the stacker handles trailing edge blanking... the stacker is letting count be true for distance watching the 'Inhibit' input. If the 'Inhibit' goes active because of a break in the stream, the count is cancelled. Otherwise, the distance is traveled that results in the product count being processed as a real count.

In summary, blanking cancels newspaper sensor counts. Wrongly applied blanking can result in long counted stacks, products given away so care needs to be taken to adjust sensors and understand the distances. The INSERT mode should never be selected during a press operation.