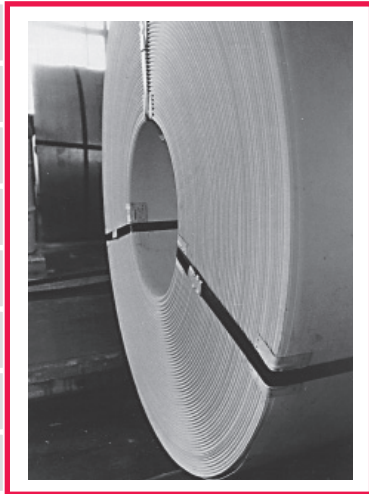


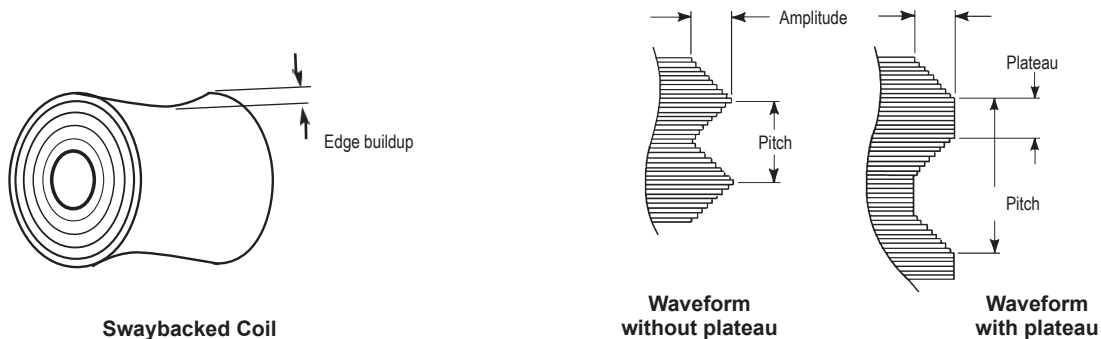
Staggerwind Recoiler Control System



- Eliminates swaybacked coils
 - Uniform staggerwind pitch control (compensated for coil diameter)
- Fully adjustable pitch and amplitude
 - Microprocessor based

Fives North American's staggerwind recoiler guide control produces a coil sidewall with a "staggered" wave pattern. Staggerwind is beneficial in processes such as coating, plating, and where the strip edge thickness varies from that in the center of the strip. This edge condition is sometimes referred to as "beading". Winding a straight sidewall with strip that has "beaded" edges produces a "swaybacked" coil (see figure) as the coil edge builds up at a faster rate than at the coil center. In some instances, especially if rewind tension is low, telescoped coils will result. These conditions are certainly undesirable for product handling and subsequent operations.

The wave on a staggerwind coil minimizes the effect of edge buildup. The amplitude of the stagger shape is adjustable. For strip that has significant edge thickness variations, a much larger amplitude is selected. The pitch, also adjustable, is most often set related to amplitude. As amplitude is increased, an increase in pitch will produce a more uniform pattern. Further, a feature of "Plateau" is available. Plateau provides the coil sidewall with load bearing capability preventing edge foldover during handling and when laying on its side. These features are all adjustable over a wide range through a user friendly configuration menu which is displayed on an easy to read backlit LCD display on the face of the controller.



Fives North American's H6600 controller provides microprocessor control of the staggerwind process. It is a full featured edge or centerguiding controller with an integrated feature to incrementally offset the strip from selected guidepoint. The stagger amplitude capability is related to the sensor field of view. The offset timing is determined from a mandrel speed encoder input signal into the controller. This pulsed signal is derived from the following sources:

- An encoder mechanically coupled to a shaft rotating at a speed proportional to the mandrel.
- A PLC pulsed signal input that is proportional to the rotating speed of the mandrel.
- A tachometer voltage signal (typically 0-10 V dc) from a rotating mandrel shaft/motor which is subsequently converted to a pulse signal.
- A current signal (1-5 mA, 4-20 mA, or 10-50 mA) from a rotating mandrel shaft/motor which is subsequently converted to a pulse signal.

For applications where the staggerwind feature will sometimes not be desired, a Stagger-on/Stagger-off switch can easily be remotely installed. The staggerwind feature is activated by energizing an appropriate terminal in the H6600 controller.

Two models of the H6600 electronic controller offer the staggerwind feature; H6600-SW-01 (standard), and H6600-SSSW-01 (with "self-see" circuitry for detector positioning applications.) Refer to Bulletin 10024/Bul. 2.00 for detailed specifications and broad capabilities of the H6600 electronic controller beyond the staggerwind feature.

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