Flying Cut-Off (Flying Shear)

DESCRIPTION

The flying shear is a typical motion control application in which material or product must be processed or cut while in motion. The flying shear control must track a point on the product, accelerate to match the speed, and send an output to operate the cutter while maintaining synchronization with velocity and the tracked position. The flying shear works within a fixed distance. When the process is complete, the flying shear must decelerate to a stop and return to the starting position for the next cycle. Considerations should be made to ensure you are able to fully process the material within the working boundaries of the flying shear and return to the starting position within the time required for maximum product throughput.

SOLUTION

The 1394 Motion Control System and brushless servo motor provide the capability necessary for a flying shear control, with the flexibility of a programmable motion controller and the low maintenance of brushless servo technology.

ADVANTAGES OF A SERVO SYSTEM

- Motion automatically follows machine speed so no reprogramming is necessary if the speed of the system changes
- The operator interface capability of the 1394 system allows quick set-up and change-over between different sizes and spacings
- Accurate, repeatable digital control produces high throughput with minimum waste