

### Application Information

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#### Packing Paper

Nearly all of us have either shipped or received a package with valuable contents that need to be protected during shipping. Often the costs of the packaging materials are not tightly controlled like the product they are protecting. The packaging costs are just estimated as an overall average per unit versus looking more closely at each package's actual requirements. Obviously the higher the volumes, the more potential waste can be accumulated, reducing margin of the overall product.

Shimpo was recently contacted by a manufacturer of light machinery. Most of their products are lined and insulated with a recycled industrial packing paper which is pulled from a large roller at the final packaging stage of their assembly line. These rollers must be swapped out as the rolls are consumed. What the production engineers found was an inconsistency in the depletion rate from one shift to the next. To create a uniformly packaged product, plus avoid excess paper being stuffed into the box or discarded if too much was torn off, a combination of Shimpo products were used to display the exact amount to be used.

As a specific product to be packaged approaches, an operator is shown the predetermined amount of length of paper to use for each product. As the paper is pulled from the roller the RE1B-60F encoder with an FPM contact wheel rotates along the paper. The encoder wheel sends a signal to a DT-5TS Panel Meter Tachometer to display the exact length and inform the operator when a sufficient amount of paper is used.

After instituting this process into their operating procedures, their quality control team has measured a greater uniformity in packaging, a decrease in damaged product from a lack of packaging material, plus a decrease in wasted packaging paper from operators using excessive paper. The addition of the controls paid for itself in a few months and the customer continues to accrue on-going cost savings.

#### Equipment Used

- DT-5TS Panel Tachometer Display
- RE1B-60F Rotary Encoder



**Rotary Encoder RE1B**



**DT-5TS Panel Tachometer**