



## PROJECT PROFILE

### MACHINE DESIGN – STRAPPING RECYCLER

#### CLIENT CHALLENGE

Lightweight plastic strapping is used for the shipping of raw material and finished products in many industries, particularly the corrugated cardboard industry. This material is not reused, but thrown out or ground down and recycled. The client wanted to develop a machine to rejoin the ends of used cut sections of the strapping, rolling it up into a coil for reuse in new cut sizes, thereby diverting the one time use product from waste or recycle programs and returning it to its original state ready for re-use. Prior to the incorporation of Palladium Product Development & Design several current Palladium personnel were retained to assist with this goal.

A program was developed which started with an examination of the industry to determine the current status of any reuse of plastic strapping. No machine or programs were found, so a concept was developed and a “proof of principal” POP of the critical components was built and tested. Once the critical components were performing within acceptable parameters, the design was fully developed and specifications generated. A pre-production model was built and placed in a production environment for real life testing and general use.

#### PROJECT HIGHLIGHTS

- The machine proved to be very reliable and produced consistent results
- This is a patented process and has won the AICC “Innovator of the Year Award”
- Eliminator 2000 recycles (reuses) polyester and polyethylene strapping
- Turn-key system



#### MANUFACTURING MACHINE DESIGN

Manufacturing Machine Design Engineering of this nature is provided by Palladium Product Development & Design on an ongoing basis for many products, industries and companies such as the case history described above. Many of the same personnel (some with over 20 years industry experience) are still active and providing services to past clients they have served, with continued upgrades and product improvement programs. Design modifications related to manufacturing/machine design, packaging and transportation efficiencies, researched product quality improvements and implementation of client/user feedback are routinely implemented as a result of these analyses and design engineering services.