

PACKAGING

Stretch packaging protects truck parts

With a new stretch film system, an auto accessory manufacturer increases productivity and yields savings in labor and materials costs.

By Sara Pearson Specter, Editor at Large



As one of the largest manufacturers of accessories for heavy-duty truck and sport utility vehicles in the United States, Texas-based Ranch Hand Truck Accessories added more automation to meet growing demand. The company had been producing approximately 160 grille guards and front bumper replacements a day, sold primarily by new car dealerships and aftermarket truck accessory retailers. When output grew to more than 200 pieces per day, the company installed a robotic powder coating line.

"When we put the new powder line in, we started seeing a bottleneck in packaging," recalls Greg Chumchal, general manager. "At the time, we were hand packaging everything. Even with six people working the packaging line, we couldn't keep up."

Both the grille guards and bumpers are large and oblong—measuring roughly 7 x 3 x 3 feet—and weigh an average of 130 and 270 pounds respectively.

"These things are tough to wrap because of their shape and sharp corners," Chumchal explains. Packaging consisted of foam-in-place pads, over-wrapped with kraft sheets. The kraft wrapping was held in place with bailing twine, tied by hand. Packaging workers often wrestled with the paper and twine while handling product coming off the paint line. Further, the kraft material was not holding the padding in place consistently, compromising product protection during shipment and outdoor storage at customer locations.

While the foam-in-place pads reduced shipping returns by 80%, it wasn't good enough. "We can't have the products getting banged around and scratched up in transit," says Chumchal. "The distributors just send

A stretch wrapping system replaced kraft paper and twine with scored corrugated sheets.

them back." With a MSRP on grille guards of about \$575 and front bumper replacements about \$1,300, the margin could be eroded quickly with product returns.

The company turned to a faster, more efficient and protective packaging method, implementing a stretch wrapping system (Lantech, 800-866-0322, www.lantech.com) and replacing the kraft paper and twine with scored corrugated sheets to hold the pads in place.

Mounted on a 40-, 60-, 75- or 90-inch ring through which product passes, the machine's film delivery system wraps both product and conveyor simultaneously while the product is moving or stationary. After wrapping is complete, a cut-and-clamp device cuts the end of the film, which recovers against the product as it exits the machine. Wrapping parameters, including conveyor speed and number of wraps, are adjustable with a touchscreen programmable logic controller (PLC).

"The versatility of the system lets us handle almost any shape or size we put through it, so we now wrap 95% of our products with it," Chumchal says.

In addition to increasing productivity, the stretch film system has yielded substantial savings in labor and materials. Annually, labor costs were reduced by 17% (about \$19,000) and packaging materials costs were reduced by 12% (about \$25,000). Chumchal estimates that labor and material savings alone will pay for the machine in less than three years. Further, bonus savings come from a 50% reduction in product returns due to shipping damage. 