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Case Study: MacNeil Automotive Products, Bolingbrook, IL

MacNeil Automotive Products has been in business for over 20-years, and is the designer, manufacturer and distributor of many 'after-market' automotive accessories, including; molded floor-liners, floor mats, mud flaps, bug deflectors, wind deflectors, modular flooring and car care chemicals. Dave MacNeil, Founder and CEO of the company believes in the Made in America mantra, and works diligently to serve our country through local purchasing.

Located in Bolingbrook, Illinois, the company continues to expand its product line offerings, and manufacturing capabilities. Customers can buy direct through their online e-Commerce site, or via a network of select distributors including retailers.

Since bringing manufacturing in-house, sales have grown dramatically. Key advertising in magazines, television, radio and billboard has had a dramatic impact on the company, not to mention trade-shows and increased retail exposure.

Part of the Conpac Group method to serve our customer is identifying opportunities to improve a customer experience, often times in areas they have not yet considered. During a visit to the MacNeil Automotive warehouse, Don Esbjornson (President, Conpac Group) noticed the number of people involved in packaging that days order volume. "It was nearly an assembly line effort without the use of any equipment or automation", said Don Esbjornson.

Over 20-employees were involved in the process:

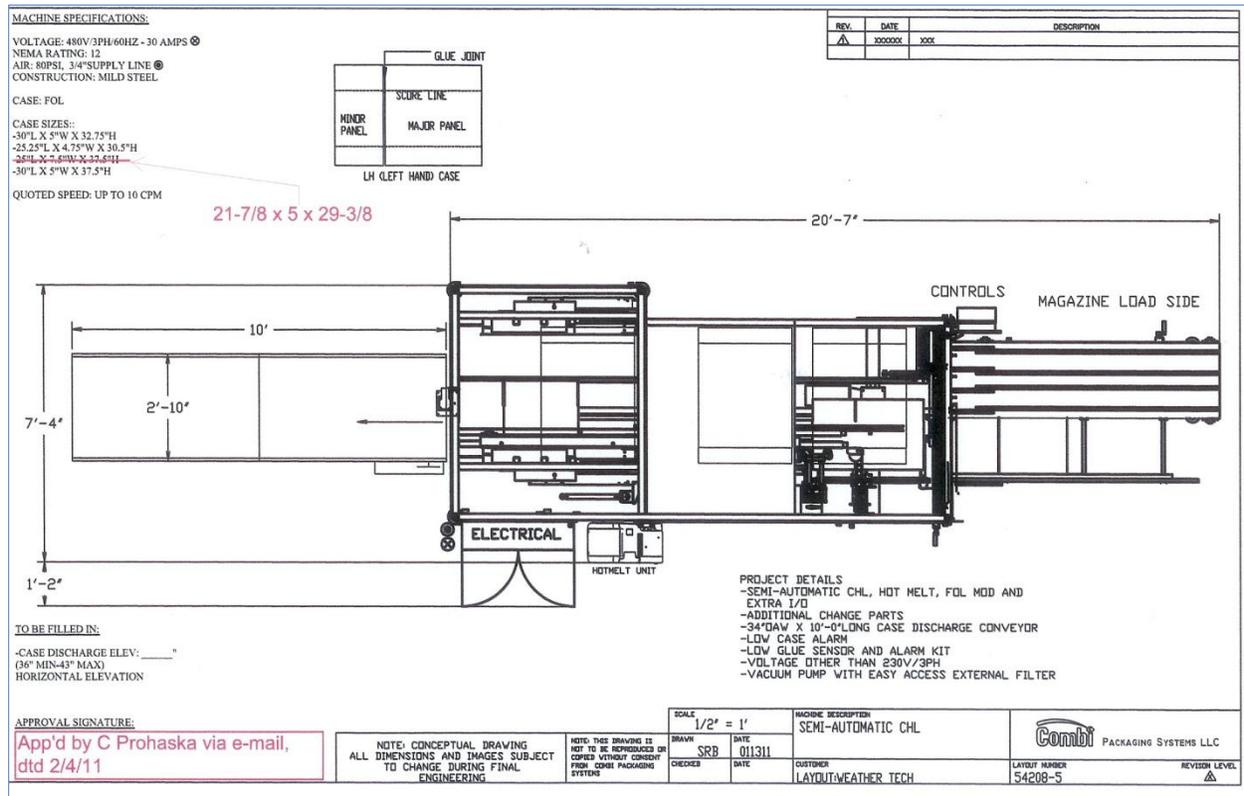
- 1.) Remove a flat carton from the in-bound bale of corrugated
- 2.) Square carton, fold minor then major flaps on one side
- 3.) A second employee would apply 2-3 pieces of tape to close carton
- 4.) Stack assembled carton on floor for insertion of literature by another employee
- 5.) Fork-lift driver would bring pallet of floor mats containing both right/left sides
- 6.) Another employee would 'marry' the right/left mats, and throw them to another employee waiting to catch/insert into open carton
- 7.) Another employee would catch mats, insert and move on for the next catch
- 8.) Another employee would tape each carton closed, and stack on pallet for shipping

This process was done in multiple locations, processing up to 5,000 cartons per day. On average, the time from carton selection to closure was 3-minutes per carton (20-packs per man hour).

Conpac Group presented the concept of a machine that would do all 8-processes above, with nearly full automation, resulting in a throughput rate of 15-cartons per minute using just 3-employees (150-cartons per man hour).

Return on Investment; 4-6 months during their peak season.

Working with Combi Automation in Canton, OH, Conpac Group presented the first drawing within a few weeks of the concept discussion.



The proposal stated that the Combi Automation equipment would provide for 1-employee to load the machine with up to 125 cartons (in their flat state) at any given time. The equipment would select the carton, open it, and advance open carton to the operator. The operator would insert product, hand swipe the safety switch, at which time the carton would again advance, closing the flaps and gluing both the top/bottom closed. A third employee received completed cartons at the output, and stacked on a pallet for final loading.

14-weeks following the formal purchase order from MacNeil Automotive, the system was installed. Conpac Group executives, sales and 3-technicians were there for the flat-bed semi-trailer arrival, and participated in the unpack, removal from truck, assembly and testing.



Support from Combi in final preparation and employee training completed the process, and all systems were GO for the start of the 'peak season' in 2011.

Today, the Combi Automation equipment is in full use every day, and employees there can't imagine a day without this necessary tool.

Work with MacNeil Automotive continues to progress. New efforts to automate their processes, reduce labor expense, and increase throughput while providing continual improvement are taking place each and every week.

View the working system at YouTube: