

ABOUT LYLE INDUSTRIES, INC.

Lyle Industries is a leading manufacturer of quality roll-fed thermoforming and bottle trimming equipment. Lyle designs, builds and ships machines to customers worldwide. From conception to delivery and set-up, and under strict guidelines and detailed specifications, Lyle's trained and experienced sales force, engineering staff, manufacturing personnel, and service team work together to provide their customers with the equipment and expertise they need to keep their companies supplied with the highest quality and technologically advanced thermoforming solutions in the industry.

BUSINESS CHALLENGE

Lyle Industries has been a longtime customer for **Cone Drive**. The challenge has been assisting Lyle to engineer solutions to automate their manufacturing processes.

HOW WE HELPED

For many years, Lyle has used Cone Drive's model HP worm gear reducers to drive the mold platens and trim press. The 300% overload rating of the model HP makes it a durable and reliable performer on these types of high inertia, reversing load applications during normal operation as well as e stops. Lyle found that the HP's high torque density and ability to mount servo or AC motors directly to the reducer saved them space, which has become more important as machine speeds have increased.



Servo Platen Drive Gear Box

More recently, Lyle integrated Cone Drive's economical Series B worm gear product with the patented fret free bushing design into the machine for the lighter duty non-precision motions. Lyle automated the rack and

Main former drive using a 4" Cone Drive Model HP



pinion system that raises and lowers the heating elements over the main conveyor system to heat the plastic web to the proper temperature prior to going into the formers. This provides for a better finished product and less scrap for the end users.

In their latest innovation, Lyle designed in servo motors with Cone Drive's Series E planetary gearboxes to automate the chain rail adjust system. This adjustment is done to accommodate different web widths and was previously a manual operation. By using a high ratio, the Series E allowed the use of the smallest servo motors possible. Now Lyle's customers have a fully automated machine that can be setup quickly, accurately and repeatability – reducing product change over time and material waste.



B series gearboxes for the standard oven lift

TESTIMONIALS

"Cone Drive's knowledgeable and accessible application engineers worked closely with our staff to help solve our toughest challenges."

- Gary Sowden, President
Lyle Industries

"Cone Drive's variety of products helped us with our precision as well as heavy lifting machine requirements."

- Gary Sowden, President
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