Automated Lube System Saves Aluminum Manufacturer More Than US$45,000 Annually by Reducing Oil Consumption

**Problem:**

Golden Aluminum, a manufacturer of aluminum for food and beverage containers, needed to coat 30 in. (760 mm) wide feed stock traveling up to 1000 ft./min. (300 m/min.) with lubricant. The lubricant protects the sheet in the tension leveler and reduces wear of the work rolls which follow the leveler. The previous system used too much oil, wasting money and requiring employees to dispose of excess lubricant several times per shift. In addition, the system operated at high pressure, creating a slippery, hazardous work environment around the tension leveler. Another safety concern was the pressure tanks feeding the system that were sometimes opened under pressure.

**Solution:**

An AutoJet® L210 Lubrication System from Spraying Systems Co. has eliminated Golden Aluminum's problems. The system features a 35 in. (900 mm) coil lubricator mounted at the entrance of the tension lever. The lubricator houses six hydraulic UniJet® nozzles, each of which are supplied individually by an air-actuated piston pump, to ensure even coverage of the feed stock. The coil lubricator unit is equipped with an oil mist extractor to prevent mist from escaping into the surrounding area. The pumps mounted on the system's base unit draw lubricant from a non-pressurized 35 liter (9 gallon) tank which can easily be filled during operation.
Automated Lube System Saves Aluminum Manufacturer More Than US$45,000 Annually by Reducing Oil Consumption – Continued

Results:

The improved transfer efficiency of the AutoJet® L210 Lubrication System has reduced oil consumption by 80%, saving Golden Aluminum approximately US$4,000 per month. In addition, operational efficiency has increased. The low-pressure spray system, completely contained within the coil lubricator assembly, creates no mist. The equipment and floor around the tension leveler is no longer slippery and accidents have been completely eliminated. In addition, the installation of a non-pressurized 35 liter (9 gallon) supply tank removes another potential safety hazard from the production floor. The payback on the investment for the new lubrication system was under two months.

A CLOSER LOOK AT THE SYSTEM

**Base Unit**
Contains a 35 liter (9 gallon) supply tank for lubricating oil. Air-actuated piston pumps in the mobile L210 base unit are used to supply oil to the spray nozzles.

**Coil Lubricator**
Contains six hydraulic UniJet® spray tips which provide even coverage of lubricant across the width of the strip. The enclosed design of the coil lubricator and its connection to an oil mist extractor prevent misting and safety problems.