

# *Process Technologies, Inc.*

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## **EXTREME BEARING APPLICATIONS**

### **THE CHALLENGE:**

Custom Packaging Company experienced major, repetitive maintenance costs on its' Molding Machines. These machines form pulp fibre packaging products used as protective packing in shipping and storing products. The Molding Machines are critical for smooth production of customer orders. The Challenge: KEEP THESE MACHINES RUNNING 24/7.

### **THE PROBLEM:**

The Molding Machines utilize a carriage system to load molds by dipping them into pulp tanks. These carriages are actuated on steel wheels running on steel rails. The wheels carry considerable weight, as most carriages involve many heavy molds. The carriage is suspended above the pulp tank. The tank creates a very hot and moisture-laden environment, which rises and engulfs the carriage assemble.

The extreme pressure caused by the weight of the molds, and the operational environment causes wheel and bearing failures as well as scoring and eventual failure of the rails.

These failures require the machine to be idled for 3 production days for repairs.

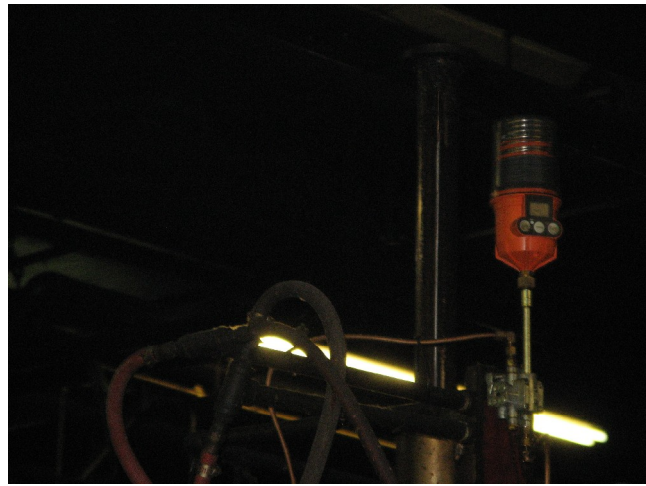
The costly repair involves 3 maintenance workers to replace rails, 12 wheels, sleeves and bearings on each machine idled. The biggest cost is however, 3 lost days of production.

### **THE SOLUTION:**

#### **Pulsarlube M Single Point Lubricators:**

The Pulsarlube M, single point automatic grease dispenser, is designed to ensure reliable lubrication and cut lubrication costs by an advanced electronic control mechanism.

Mounting Pulsarlube M units on the top of the carriage enables the M unit to dispense grease at exactly the correct position, at the precise amount and at the proper time. The lubricant is supplied in 250cc pouches, which provides 3 full months of reliable operation.



### **Chesterton 633SXCM Grease:**

Chesterton's 633 Synthetic Extreme Pressure and Corrosion Resistant Grease is ideal for this application!

- 633SXCM's Extreme Pressure capacities will dramatically reduce the friction between the wheels and their rails. The addition of Moly enhances the lubricity thus causes less wear. Its' unsurpassed shear stability ensures it stays in place to lubricate even in the most difficult applications.
- 633SXCM's Superior Resistant to washout by water, caustics, acids and steam ensure maximum protection even in extreme moisture environments! 633SXCM can be used in 50% water contamination without diminished performance.
- 633SXCM's Corrosion Resistance offers protection of up to 10X longer than competitive greases when measured by ASTM test methods.

**RELIABILITY:** Pulsarlube M lubricators and Chesterton 633SXCM Synthetic grease have combined achieve the goal of *Long Term Reliability* to this critical process.

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## Cost Analysis

### General Information:

Date of Report	3-24-08
Equipment	Submersion Molder
# of Wheels	12
# of Bearings	12

Labor Rate:	\$28.00
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### Costs of Present Maintenance:

New Wheels Cost \$150. x 12	\$1800.00
New Bearings/Sleeves \$42. x 12	\$ 504.00
New Rails \$150 x 2	\$ 300.00
RE-Build lasts 2 Years	
Cost per Year	<u>\$1302.00</u>

### Costs of New Method:

Pulsarlube M Unit with Divider Block Kit	\$ 300.00
Service Kits w/ Chesterton 633SXCM (\$50.)	
8 service kits used over 2 Years	\$ 400.00
Cost Per Year	<u>\$ 350.00</u>

### Savings:

Old Costs Per Year	\$1,302.00
New Costs Per Year	<u>\$ 350.00</u>

SAVINGS PER YEAR	\$ 952.00
SAVINGS FOR TWO YEARS	\$1,904.00
SAVINGS FOR THREE YEARS	\$2,856.00

Costs are based strictly on equipment costs and do not reflect the cost savings increased production