



# CASE STUDY

## CUSTOM LUBRICATION SYSTEM REDUCES DOWNTIME AT DISTRIBUTION FACILITY

### OVERVIEW

The new maintenance manager at a distribution facility was looking for a solution for their tricky pallet transfer application. A tight space and hard to reach mounted bearings made maintenance tasks that should only take minutes, take exponentially longer.

Rumsey's team was able to:

- Design a new, custom lubrication system
- Reduce downtime associated with routine maintenance
- Execute from concept to design and through installation

### CHALLENGE

The customer's facility contains a section of conveyor that is part of a pallet transfer system. The pallet is lifted and moved perpendicular by way of a chain conveyor, to the overflow side of the exit conveyor. Underneath the rollers are a set of mounted bearings that are difficult to reach and required the conveyor to be locked out and rollers removed in order to service.

The positioning of the conveyor created a tight space that was difficult to maneuver, increasing the time it took to lubricate from minutes to hours.

The increased downtime caused a serious back up in the flow of pallets needing to be wrapped.

# SOLUTION

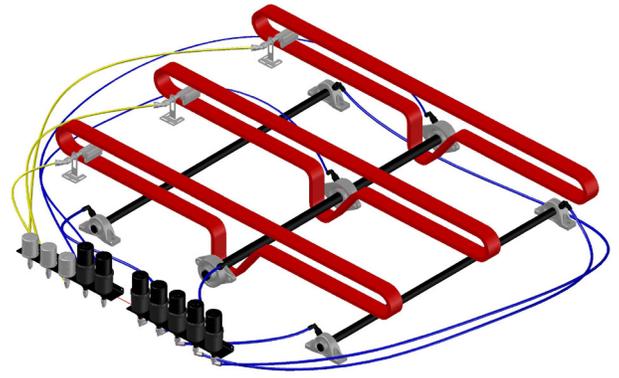
Bearings can be the least expensive part of your machine that costs you the most, especially when it comes to unscheduled downtime. In a typical mounted bearing application where access is not a concern, it only takes a minute to properly lubricate a bearing. Rumsey's goal was to cut down the maintenance time for this machine by making access to the bearings easier.

## 1 Conveyor Survey

To better understand the current application, a Rumsey specialist conducted a conveyor survey. This allowed the team to see the full picture of how their conveyor system functioned and brainstorm solutions. Tight spacing and the lifting mechanism of the conveyor to move pallets presented unique maintenance challenges.

## 2 Engineered Solution

Rumsey specialists designed a custom, remote multi-point grease lubrication system that moved the lubrication points to a readily accessible area. To reduce fatigue on the hoses from the repeated raising and lowering of pallets, the team opted for a more flexible hose designed for tight bends. A 3D design of the new system was presented to the customer for final approval. The Rumsey team sourced the products and installed the new system for the customer. Rumsey was able to take lead on the project from concept, to design and through installation.



# IMPACT

The new lubrication system no longer required the maintenance team to remove and replace the conveyor rollers to lubricate the mounted bearings below. This change drastically reduced downtime needed to perform routine maintenance.

Long-term this custom system could eliminate downtime for this task altogether. Rumsey's team designed the system to use Simalube Automatic Lubricators along with the Simalube Impulse Pressure Boosters. The customer plans to fully automate this process in the future.

The flexible hose design will reduce normal wear and give the customer a longer lifespan between replacement parts.



**Estimated savings  
of \$1,600 per year**



**ROI in less than  
9 months**

**RUMSEY**

610.832.9000  
[www.rumsey.com](http://www.rumsey.com)