

# NEWS RELEASE



## **Simplicity® Pillow blocks and Redi-Rail® Keeps Brewer Green to Go for St. Patrick's Day and all year round!**

**Rockford, IL – March 15, 2010**

Too often manufacturing companies view repetitive downtime consisting of replacing failing systems as a necessary procedure rather than a process that requires improvement. This was not the case for a major domestic brewing company, who recognized their problem of failing ball bushings on their de-palletizing system as requiring an immediate solution. After investigating the application, PBC Linear recommended switching out the competing linear bearing and cam roller system with their proven Simplicity® and Redi-Rail® products for assured compatible and reliable linear motion on the de-palletizer.

### **The Application**

After brewing, beer is filled into cans using an automated de-palletizing system. The cans are set up in stacks of pallets with several layers of empty cans in the stack—waiting for the cantilevered de-palletizing arm to move the empty cans into the filling station. The forward movement of this arm is propelled by a cam roller and linear bearing system. This allows the arm to cycle through the pallet stack, feed the cans through the filling station and remove any plastic interleave material from the stock. This linear motion application required a tolerance for high shock load and vibration under constant reciprocating stroke for optimum performance of the palletizer.

### **The Problem**

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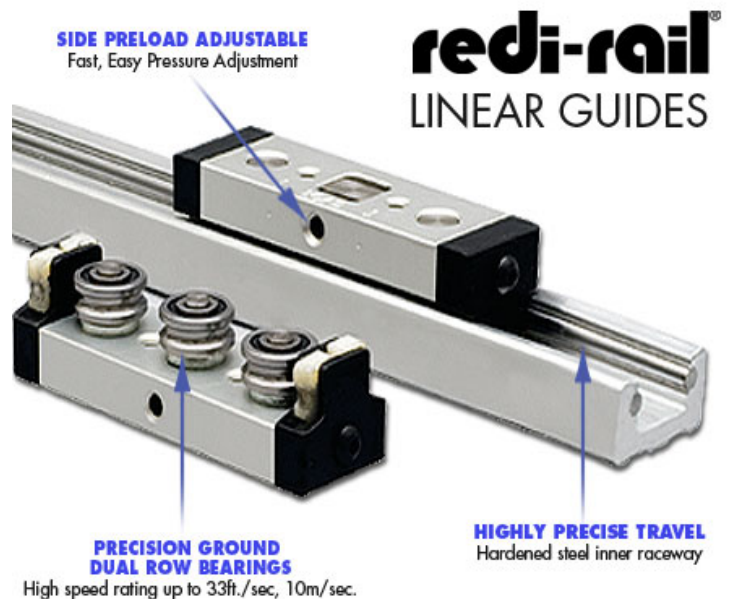
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The original linear motion system on the de-palletizer was composed of linear rollers and ball bushings. High shock loads and vibration resulted in severe fretting corrosion. The high loads created by the cantilevered weight of the pallet stack would wear the ball bushings and spall the shafting—creating accumulated particulate. These fine metal shavings would build-up within the ball bushing housing, causing the arm to stall and bringing the whole palletizing process to a grinding halt. Replacing the parts and stopping the production process resulted in significantly increased production costs and time; along with steadily decreasing profits.

## The Solution

Redi-Rail® cam rollers and Simplicity® pillow block housings were the solution recommended by PBC. The smooth, sturdy anodized rails of Redi-Rail® provided rigid linear guidance of the palletizer. Steel inserts along the rail ensured tolerance of vibration and load—allowing the Redi-Rail® rollers to glide smooth, quick and accurate.



For the linear bearing system, PBC used plane bearing pillow blocks to replace the ball bushings. Composed of no rolling materials, Simplicity® technology provides even disbursement of load as opposed to the small point of contact created by ball



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bearings. This wide point of contact eliminated damage to the shafting and ensured smooth, wear-free operation. Simplicity® products are also designed to absorb vibration, handle 20 times the load capacity of conventional ball bushings and push potential contaminants off the shafting, making them an ideal product for the application.

## The Result

The final installed Simplicity® and Redi-Rail® solution performed above expectations. Coincidentally, Redi-Rail's mounting holes were perfectly lined up with the previous ones, making the replacement that much easier. Unscheduled shut downs and stalling were eliminated; allowing for more cans to be filled and profits to increase. The brewing company manufacturer was so pleased they immediately began integrating the PBC solution in plants across the country. For more information on PBC Linear or Simplicity® technology, please email us at [marketing@pbclinear.com](mailto:marketing@pbclinear.com). You can also contact us by phone at 1.800.729.9085, or visit us on the web at our RST dedicated webpage: [RST.pbclinear.com](http://RST.pbclinear.com).

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