



## INDUSTRY CASE STUDY

**BELDEN**  
universal

### PACKAGING AUTOMATION

A customer was having a problem with a standard cross and needle bearing universal joint during the wash-down phase on the automation equipment of his food application. The needle bearing joint would absorb the chemical solution used twice daily to clean and sterilize the equipment. Once the alloy bearings absorbed the chemical compounds, gumming would occur causing the joint to run tight, lock up and fail. After discussing operating conditions and product specifications with the customer, Belden Universal developed a precision engineered hybrid of a pin & block needle bearing joint combination made completely out of stainless steel with composite bushings. The hybrid pin &

block needle bearing design employs the higher torque capacity of the friction bearing with the needle bearing's ability to continuously operate at higher speeds with less wear, and even less backlash. The composite bearings can handle harsh abrasives found in the cleaning products used by the customer allowing the joint to operate freely and cycle for a longer duration before any precision is compromised. The Belden Universal solution provided the customer a completely wash-down safe universal joint, eliminating corrosion issues and contamination, burnout, and joint seizure.

**BELDEN**  
universal

Custom Engineered Precision

**BELDEN UNIVERSAL HQ  
NORTH AMERICA**

4100 Madison Street  
Hillside, IL 60162, USA  
info@beldenuniversal.com  
Phone: 708.344.4600  
Fax: 708.344.0245

**BELDEN UNIVERSAL  
EUROPE, SOUTH AMERICA  
APAC, MIDDLE EAST, AFRICA**

Geneststr. 5, 10829 Berlin, Germany  
info@beldenuniversal.de  
Phone: +49 30 720 14 139  
Fax: +49 30 720 14 142

[www.beldenuniversal.com](http://www.beldenuniversal.com)