

NTN's Constant Velocity Joints Dramatically Increase Life of Pelletizer

One of the world's largest chemical companies was experiencing failures on a constant velocity joint shaft used in an extruder that pushes polyethylene into a cutter to create pellets. The regular failures were costing the company \$172,200 per year in replacement part costs, maintenance, and downtime.

NTN's engineering and sales support team conducted a comprehensive diagnosis of the pelletizer and determined that the CVJ was failing every six months due to ball fatigue damage. The damage was a result of the CVJ being significantly undersized based on the loading conditions.

The NTN Solution

With NTN being a full line CVJ manufacturer, our team was able to recommend a larger CVJ design that was more suitable to the high application loads, thus reducing the ball fatigue damage.

The Result

The NTN solution lasted six times longer! Our CVJ successfully ran for three years compared to the competitor's CVJ that was failing every six months. The increased uptime, decrease in annual maintenance, and the reduced acquisition cost resulted in \$142,500 in annual cost savings for the customer.



VALUE ADDED BREAKDOWN

UPTIME IMPROVEMENT
\$125,000

REDUCED ACQUISITION COST
\$15,667

MAINTENANCE REDUCTION
\$1,833

DOCUMENTED COST SAVINGS
\$142,500

CS-0970



CONSTANT VELOCITY JOINTS

Greater allowable operating angle

The maximum allowable operating angle with the CVJ proper is 42°. Though varying depending on the intended RPM, the maximum allowable operating angle of the joint equipped with a boot is 25° at dynamic state, and 38° at static state.

Superb sealing, and lubrication-free

Being sealed with bellows type boots, the CVJs can be used in environments where they may be frequently subjected to water splash, humidity and dust.

Greater expansion

The CVJs with intermediate slide spline shaft offer greater axial expansion.

Easy installation and removal

The CVJ proper is secured to the flange hub with through bolts. Thus, the joint can be readily installed or removed.



Downtime have your team fatigued? We can help.

We're here to help you achieve your productivity and performance goals. For more information, contact your NTN Sales Representative or call **1.800.323.2358**. For technical questions, email eng@ntnamerica.com.

NTN BEARING CORPORATION OF AMERICA
1600 E. Bishop Court • Mount Prospect, IL 60056-7604
Tel: 847-298-7500 • Fax: 847-294-1205 • www.ntnamericas.com



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