

Solving Durability Problems in a Hostile Environment

IPTCI
BEARINGS

A clean, moisture-free environment is ideal for maximizing bearing life. But sometimes a clean, moisture-free environment just isn't in the cards.



- »» 10x longer bearing life
- »» 50% savings in annual bearing costs
- »» 50% savings in maintenance hours



The Customer Challenge

A major manufacturer in the building materials industry has a slurry application where the bearings see fine abrasive particles.

Each manufacturing line contains 96 bearings. Grit and water continuously sluice through the rows of bearings, with the bearings at the “upstream end” of the line seeing the brunt of the abuse.

What's worse, the regular pressure washings

required to keep the lines operational force moisture and grit further into the bearings.

Maintenance challenges are so tough that the plant was going through as many as 1,800 UCPA205-16 bearings per year. At \$20 per bearing, that adds up quickly. Factor in the higher risk of downtime and 16-20 hours of maintenance per week and it's clear this was a problem that needed to be addressed.

After making some refinements to the cleaning processes, the company tested approximately a dozen other bearings in an effort to extend the operating life. All failed, including one cost-prohibitive bearing that survived for several months.

The Solve Solution

Dylan Tighe, an Engineering Manager at Solve, and Ryan Wolkowicz, TGB Industrial Sales Manager, discussed the problem and thought the new IPTCI IP69K Series bearings might be the answer.

These corrosion-resistant, stainless steel IP69K Series bearings are engineered to stand up to the most rigorous operating conditions, including high-pressure caustic washdowns, at a price-point that is surprisingly affordable.

A unique triple-lip, molded rubber composition seal provides superior protection against liquid and dust intrusion without the need for external seals or covers. And the IPTCI IP69K Series bearings from Solve are "lubed for life" with food-grade grease to eliminate lube holes, grease zerks, and other potential areas of ingress.

The manufacturer began by testing several IPTCI IP69K Series bearings to see how they would hold up in the harsh environment. At twenty weeks (and counting), there has been no sign of wear. An

additional 96 bearings were installed to complete the conversion of the line.

"The seals used on Solve's new IPTCI bearings are top notch. They aren't allowing any ingress of material like we have seen from every other manufacturer and seal type we have used before," according to the maintenance lead at the manufacturer. "This is one of the worst applications a bearing can see... this truly sets you apart."

The manufacturer estimates the IPTCI IP69K bearings

- »» **10x longer bearing life**
- »» **50% savings in annual bearing costs**
- »» **50% savings in maintenance hours**

will cut their annual bearing costs by more than 50%, thanks to a 10X increase in bearing life. Additionally, maintenance time also been reduced by 50% – saving 8-10 hours per week.

"You do the math and it's a no-brainer," commented Tighe. "These bearings really hold up, and the savings — both in actual hardware costs and in reduced downtime — make them an extremely cost-effective solution."

Solve offers a full range of IPTCI IP69K Series bearings, in sizes from 1/2" to 1-1/2" (20mm to 40mm). They are available in all major housing configurations, including Stand-Off series.

Learn more about IP69K Series bearings and other Solve products at solveindustrial.com.