



Customer
Coal-fired power plant

Industry
Energy

Application
Conveying — coal storage silo conveyor

Rexnord Solution:
ZAF SHURLOK Adapter-Mount Bearings

Total Annual Savings
\$10,198

For a detailed cost analysis for your application, contact your local Rexnord Representative.

SHURLOK Bearings Reduce Replacement Costs by Over 60% at Power Plant

Challenge

An energy utility provider in the Northwest U.S. was using SAF split-block bearings on the pulleys for their coal storage silo conveyor system. The system’s head pulley drive is housed in a cramped and dirty shed. SAF split-block bearings require expertise to assemble and install, and it is critical that bearings are attached to the drive shafts properly, since the conveyor pulley is subject to vibrations and shock loads. Although the power plant has used the SAF bearings for years, they were open to looking at alternatives because:

- Assembling split-block bearing components on-site during installation can allow contaminants to enter the bearing, shortening bearing life.
- Maintenance staff who have experience replacing SAF style bearings are retiring.
- It can take two skilled technicians eight hours to replace SAF bearings, and reducing total downtime for maintenance is imperative.

Rexnord Solution

Rexnord proposed replacing the SAF bearings with ZAF SHURLOK® Adapter-Mount Bearings, which offer the customer these advantages:

- **Rugged one-piece housing** eliminates contaminant introduction. ZAF bearings come pre-assembled, pre-filled with grease and sealed, ready for installation.
- **Factory preset clearances** reduce installation time and skills required.
- **Spyglass™ Optical Strain Sensor technology** shows the installer when to stop tightening the locknut — no need for feeler gauges.



Rexnord offers power plants solutions that can end major downtime.

Rexnord Solutions and Savings in Action

Since installing this Rexnord solution, the customer:

- Reduced downtime hours for replacing bearings by over 60 percent.
- Reduced training requirements for maintenance staff.

Calculating the Annual Total Cost of Ownership (TCO)

Rexnord worked with the customer to determine the current costs compared to the TCO using the Rexnord solution. Factors considered were:

- Acquisition costs.
- Installation costs.
- Costs of lost production.

Annual Cost Analysis Breakdown (in \$USD)

Acquisition Costs

	Purchase Price	Expected Life (years)	Units Installed	Total
Current split-block bearings	\$970	5	2	\$388
Rexnord® ZAF SHURLOK Adapter-Mount Bearings	\$1,076	5	2	\$430
Annualized Savings				-\$42

Installation Costs

Reduced installation time and training.

	Installation Cost	Installation/Year	Units Installed	Total
Current split-block bearings	\$960	0.2	2	\$384
Rexnord ZAF SHURLOK Adapter-Mount Bearings	\$360	0.2	2	\$144
Annualized Savings				\$240

Lost Production Costs

Reduced the amount of downtime to replace bearings.

	Events/Year	Downtime/Event (hours)	Downtime Cost/Hour	Total
Current split-block bearings	0.2	8	\$10,000	\$16,000
Rexnord ZAF SHURLOK Adapter-Mount Bearings	0.2	3	\$10,000	\$6,000
Annualized Savings				\$10,000

Rexnord Solution Annual Savings Summary

Total current cost	\$16,772
Total proposed cost	\$6,574
Total savings	\$10,198
TCO reduction percent	61%

Total Cost of Ownership Annual Savings: \$10,198