

UTA Cobra Solid Lubricant™ Bearings

METALS INDUSTRY

Eliminate Grease Lubrication of Cooling Beds and Roller Tables with UTA Cobra Solid Lubricant™ Bearings



Engineered Graphite Solution Reduce Costs, Waste, and Environmental Impact

Roller tables and cooling beds transport hot, semi-finished product to the next step in the production process. The material transported is extremely hot - typically between 800° to 900 °C. This heat, combined with slow rotational speeds, causes lubricant loss from the bearing housings, ultimately resulting in bearing failures and disruptive downtime.

To counter this, a common practice is the excessive use of grease to compensate for both grease loss and degradation, and to act as a barrier to contamination.

This results in significant costs for: the purchase and disposal of grease, frequent maintenance in hazardous environments, and cleaning & water treatment. Not to mention the danger of fire due to accumulation of grease outside the bearing housings. Oil-air lubrication is sometimes used as an alternative to grease lubrication, but it is not ideal. It requires a significant capital investment and leads to increased costs for energy and maintenance.

The Solution: UTA Cobra Solid Lubricant™ Bearings

By filling the empty space inside a bearing with an engineered graphite mixture, UTA provides an efficient and cost-effective alternative to the use of grease in hostile steel making environments. Almost any bearing type can be supplied with UTA Cobra Solid Lubricant™, providing very low & constant friction, as well as an extremely high temperature limit of 350 °C.

UTA Cobra Solid Lubricant™ bearings do not require re-lubrication, eliminating the cost and environmental consequences of conventional greasing programs.



ECO FRIENDLY

Benefits

- **Reduced Maintenance**
 - Virtually maintenance-free
 - No need for re-lubrication
 - Reduced need for cleaning
- **Increased System Reliability**
 - Extended bearing service life
 - Less unplanned downtime
- **Reduced Environmental Impact**
 - No grease consumption
 - No lubricant leakage
 - Reduced water contamination
- **Improved Safety**
 - Reduced risk of fires caused by grease
 - Elimination of slippery work surfaces caused by grease
- **Reduced Total Operating Costs**
 - Less maintenance
 - Less lubricant usage
 - Reduced energy costs

Typical Applications

- **Cooling and roll out tables in all caster types**
- **Guide rolls in bar mills**
- **Reheating furnace rolls**
- **Roller tables in hot rolling mills**
- **Rolls in bloom and billet casters**
- **Sinter machine wheels**



For more information on UTA products and solutions, visit www.utausa.com

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Increase The Return On Your Maintenance Investment with UTA



UTA Cobra™ Solid Lubricant Bearings™ Help Steelmaker Reduce Costs Associated with Cooling Beds!



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The Challenge:

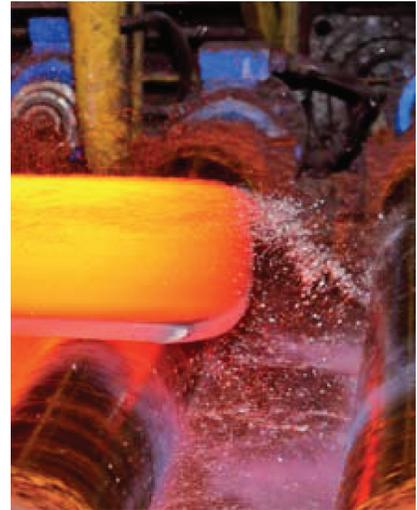
A customer was experiencing problems when process delays caused hot, semi-finished steel to rest in the same area of the cooling bed. As more heat was transferred to the bearing housings, the units' standard grease and seals quickly deteriorated, leaving bearings without adequate lubrication.

The situation caused bearing failures that blocked rolls and, in turn, caused damage to the product surface. This resulted in costs for additional steps (grinding or rework), ultimately affecting mill productivity and profitability. In addition, attempts to correct the problem with frequent re-greasing of the bearings created dangerous work conditions; slippery floors and higher risk of fires.

Finding a Solution with UTA:

The steelmaker contacted UTA to evaluate the problem and find a solution. UTA suggested replacing existing conventional bearings with UTA Cobra Solid Lubricant™ bearings.

This solution has proven to be an excellent choice, resulting in increased reliability of the steel making process, reduced maintenance costs, and improved health & safety conditions. In addition to savings from reduced grease usage and elimination of the need for rework, the mill was able to reduce insurance costs due to the reduced fire hazard.



Return On Investment (ROI) Summary*

Investment in UTA solution per guide roll line.....	\$39,648
Average mean time between repair before UTA solution.....	6 months
Average mean time between repair with UTA solution.....	24 months
Annual savings per line.....	\$53,240

ROI after 12 months 34%

Additional savings, more difficult to quantify, include:

- Water Treatment
- Lubrication System Maintenance
- Improved Work Conditions

** All numbers are rounded and based on customer's estimates. Your particular cost savings may vary.*

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