Extended Life for Load-Carrying Chains in Copper Anode Casting Pool

Manufacturing Industry
720 CCG Chains Cable and Gears Lubricant with Diluent
IL/MRO Case Study

Challenge

Background

Load-carrying chains in the anode casting pool at a copper casting facility were exposed to aggressive barium sulfate. Due to constant water exposure and harsh conditions, previous lubricants failed to stay on the chains, leading the customer to completely forgo lubrication. As a result, chains broke every 2 years. Each replacement chain cost $3,000 (total of 4 chains in plant), and replacement halted production for 6 hours, leading to significant downtime and losses.

The customer needed a high-performance lubricant that would adhere to chains despite water exposure, withstand harsh chemical environments, reduce wear, and extend chain life.

Conveyor chain in copper anode casting pool that is exposed to water and harsh chemicals.

Solution

Product

A Chesterton specialist recommended **Chesterton® 720 CCG Lubricant** to address the critical concerns of water washout and corrosion in this application. Made with **QBT™ oil-gel technology, 720 CCG** forms a strong, long-lasting adhesion to chain surfaces, preventing washout even with continuous water exposure. This protective barrier effectively prevents corrosion while ensuring deep penetration into pins and bushings, which helps to reduce wear and extend chain life.

$ = USD

720 CCG with QBT™ oil-gel technology does not easily wash off in the presence of water.

Results

Increased Reliability

Since using 720 CCG, the customer indicated that:

- 720 CCG stays on their chains for almost 6 months, reducing lubrication intervals to twice a year
- Chains showed minimal corrosion
- Customer expects significantly longer chain life

Expected cost savings after 2 years:

Cost of chains = $3K x4 =		$12,000.00/2 years
Chain replacement cost =		$3,000.00/2 years
Production loss	=	$24,000/2 years
Total cost of chain replacement = $39,000		
Cost of Chesterton solution =		$3000/2 years
Total savings	**=**	**$36,000/2 years**

Anode casting chains stay lubricated for 6 months after 720 CCG application.

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