

CASE STUDY

PROJECT REPLACEMENT THICKENER DRIVES
PRODUCT DBS Replacement Drives
INDUSTRY Mining
LOCATION Renison, Tasmania



BACKGROUND

Renison Tin Operation is the largest tin producer in Australia, one of the world's largest and highest-grade tin mines and through the Metals X equity interest, one of the few publicly held tin projects in the world.

Their ore leaching plant incorporates several thickeners where ore-liquid slurry is densified to a slurry containing most of the solids, and an overflow of essentially clear water. Each of the 20 ft diameter thickeners is fitted with an internal rake that is turned and lifted by an electro-mechanical drive mounted on a bridge that spans the thickener tank.

The old Eimco Process Equipment W36 drives with power lift installed on the thickeners had become unserviceable, which directly impacted mine production. Repairing the drives was possible but expensive and required extended plant down-time that would interrupt mining operations.

The mine opted for complete brand new DBS replacement drives that are direct bolt-in replacements for the existing Eimco drive units. The DBS replacement drives were found to be more economical than rebuilding the old drives and required less plant downtime to install. The mine installed DBS replacement drives for two leaching plant thickeners in 2020, and for another two thickeners in 2021.

SOLUTION

- Bridge mount drive unit
- DBS Replacement drive model S25-AE-L524:
 - Torque Continuous/Maximum, 19/38 kNm
 - Drive motor; 1 kW
 - Lift capacity; 5 ton
 - Lift drive motor; 0.375 kW
- Includes 4-20 mA torque & lift position transducers

RESULTS AND BENEFITS

DBS replacement drives:

- **Fast.** Short delivery lead time
- **Reduced downtime.** Mine back producing faster than rebuilding existing drives
- **Cost effective.** Better value than rebuilding existing drives or those offered by original equipment supplier
- **Direct bolt-in replacement.** installation is straightforward and results in less plant down-time
- **Modern** technology offers greater reliability and less maintenance
- **10-year warranty** on main gear/bearing



Old drive



Modern DBS bolt-in drive unit