



Operation

Slurry processing plant in mining industry pumping of chrome, platinum and gold

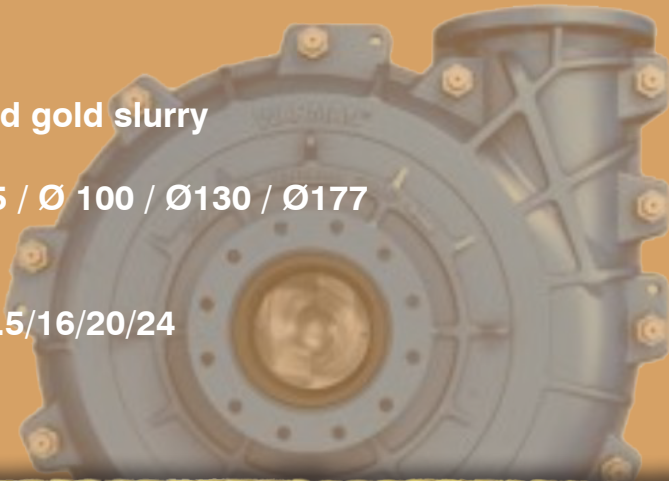


Equipment

- o Warman Heavy Duty AH Single Stage Centrifugal Slurry Pump
- o Battlemax Heavy Duty IN Single Stage Centrifugal Slurry Pump

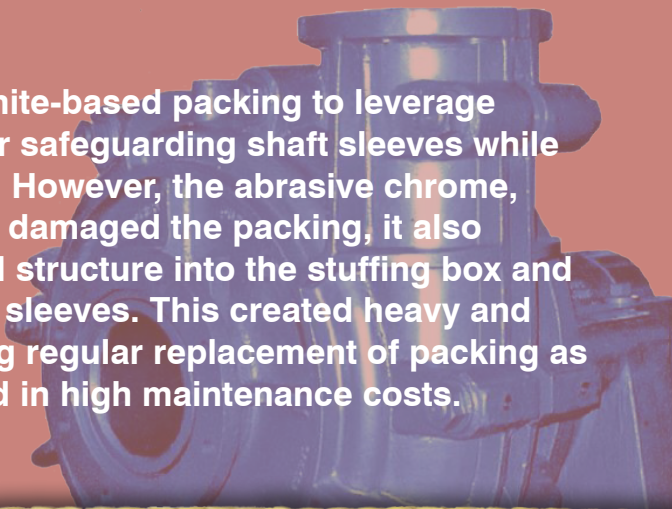
Application

- o Media: chrome, platinum and gold slurry
- o Temperature: 30-40°C
- o Shafts: Ø 45.5 / Ø 59 / Ø 82.5 / Ø 100 / Ø130 / Ø177
- o Speed: 800-1800 RPM
- o Gland pressure: 8-12 bar
- o Packing sizes (mm): 8/10/12.5/16/20/24



Problem

The customer used generic graphite-based packing to leverage graphite lubrication properties for safeguarding shaft sleeves while dissipating heat from the system. However, the abrasive chrome, platinum and gold slurry not only damaged the packing, it also managed to get through the braid structure into the stuffing box and quickly caused wear on the shaft sleeves. This created heavy and frequent leakage issues, requiring regular replacement of packing as well as shaft sleeves and resulted in high maintenance costs.



Solution

Installation of Lionpak 3301 with unique lubrication system incorporating red PTFE lubrication core that releases red lubricant through the aramid braid from the ID during operation. This helps reduce friction and heat build-up, safeguarding shaft sleeves and reducing maintenance cost as well as energy consumption while maintaining long service life in the harsh and abrasive environment.



Benefits

The use of Lionpak 3301 packing resulted in doubled service life of the pump packing (from 1 to 2 months). The packing has also reduced the erosion of shaft sleeves, resulting in less frequent replacement of sleeves, significantly reducing maintenance and operating costs as a result.

