

GIW Cyclone Feed Pump Installed in Peruvian Gold Mine

GIW Industries, the leader in the design, manufacture and application of heavy-duty, centrifugal slurry pumps recently installed a 150 LCC 20(XH) cyclone feed pump at a gold mine in a remote region of Northeast Peru, providing the mine with a reliable pump solution that dramatically exceeded expectations.

At the time the pump was installed, the mine was also testing two additional pumps from GIW's top competitors. The pumps faced a formidable task in harsh conditions: moving raw ore and water (slurry) inside the plant from the Mill Discharge to the Cyclone Clusters — where small particles of ore are sent to the flotation circuit in order to recover the sulfides that contain the gold. The rough particulates in the slurry are extremely corrosive, and slurry pumps tend to wear out quickly in such conditions.

Ultimately, the competitors could not contend with the lifecycle of the GIW LCC pump. Competitor 1's suction plate lasted 10 days (240 hours); competitor 2's suction plate lasted 40 days (960 hours).

But GIW's LCC pump dramatically improved performance in relation to any previous pumps used in the gold mine, with a total lifecycle of 1500 hours for the suction liner, 1500 hours for the impeller and over 1500 hours for the shell. The mine recognized GIW's LCC pump as a success because of its outstanding wear life and for matching the required cycle time.

Although the region's cold and extreme weather conditions have little effect on the operation of the slurry system, the remote location of the gold mine makes accessibility to spare parts an issue. Any downtime at the mine waiting for the transport of spare parts ultimately means the plant is losing gold. With the ability to house spare parts nearby, GIW was able to significantly extend uptime at the mine.