

Derrick® G-Vault™ Interstage Screen offers Dramatic Payback

- Long-life urethane screen surface technology
- Bolt-on replacement for easy initial installation
- Significant maintenance savings over stainless-steel wedge-wire design

Background

Gold mining companies around the world have been tied to stainless-steel wedge-wire cylinder-style screens for their CIL/CIP RIL/RIP operations since the process was modernized over 20 years ago. This technology of using stainless-steel wedge-wire cylinder screens has been problematic in that frequent maintenance is required to “unblind” the screens.



Figure 1 - washing of interstage screen at CIL plant

This process typically requires an operator to raise the entire screening machine above the tank and use a high-pressure water (Fig. 1) to blast the carbon (or resin) particles from the screen apertures. This process is generally repeated as an ongoing activity for each screen in the process plant until the cycle begins to repeat.

Solution

A major gold mining company provided their CIP plant location in Nevada, USA as “Proving Grounds” to test the expected benefits of combining a long-life wear-resistant material such as polyurethane with Derrick’s proven non-blinding high open area panel technology into an interstage screen design.

The result, Derrick’s G-Vault™ Interstage Screen, a cylindrical screen with individually replaceable screen sections (Figure 2). The screen sections are of a significantly higher open area, 30% versus 16%.



Figure 2 - G-Vault Interstage Screen pre-installation inspection

Also, the wear resistant properties maintain a long operational life.

The cylinder (basket screen) presents as a direct replacement to the existing wedge wire screen cylinder. The mechanisms are re-used, and after replacing the cylinder, the unit is lowered back into the CIP tank. The G-Vault design gives operations a financial benefit directly related to annual labor costs per basket. The operational efficiencies gained allow for the assigned personnel tasked with cleaning the basket screens to take on other duties or for operations to possibly reduce headcount depending on the needs. The extended time between cleaning cycles allows for less process interruptions as well.

Conclusion

Replacing existing wedge-wire screens with the Derrick G-Vault Interstage Screen indicates a measurable financial impact to gold processing operations with an ROI of 35% (payback period of 9 months). Another technological advance in screen surface development allowing clients to work smarter, not harder.

For more information, please contact your local Derrick sales representative.

590 Duke Road • Buffalo, New York 14225 U.S.A. • Office: (716) 683-9010 • Fax: (716) 683-4991
info@derrick.com • www.Derrick.com