

## CASE STUDY

### KFS: KLEERFLO SUCTION (DEMAND SIDE) FILTER

### FINAL FILTRATION, GLAND SERVICE WATER, PLATINUM MINE, BURGERSFORT



**Client:** Platinum Mine  
**Industry:** Mining – Final Filtration – Gland Service Water  
**Region:** Limpopo, South Africa  
**Product:** KFS 3E1/250/05/08  
**Installation Date:** 2018

#### Challenge

- Mines recycle process water and use some of it for Gland Service Water (GSW).
- The recycled process water may have high suspended solids levels.
- The suspended solids cause damage to equipment.
- Specifically, dirty GSW will reduce the life of the slurry pump stuffing box components and gland packing.
- For this application, filtration is required on the suction side of the multi-stage pumps that supply GSW to the slurry pumps.
- Filtration on the demand side of pumps runs the risk of starving the pump of water, especially during the self-cleaning (backwash) cycle.

#### Application

- **Final Filtration** / Filtration of **Gland Service Water** to protect slurry pumps / installed on **suction (demand) side** of the multi-stage **pumps** that deliver the water to the slurry pumps.

#### Solution

- Design of the KFS filter is rooted in the principle of inherent simplicity:
  - no rotating parts

- very few moving parts
- no close tolerance elements
- no electric motor
- high quality, durable, stainless steel wedgewire screens.
- KFS filters are designed specifically for tough industrial applications.
- Low maintenance- and running costs.
- Long uninterrupted filter runs, efficient filtration and filtrate in compliance with client acceptance standards.
- Integral processing of oversized particles – so no manual pre-screens required.
- KFS filters are designed to provide filtration on the suction (demand) side of high-pressure pumps without the risk of starving the pumps during self-cleaning (backwash) cycles.
- The mine installed a **Kleerflo Suction Filter** – model **KFS 3E1/250/05/08**.
- Filtration provided at 250µm.

#### Results

- Cleaner gland service water resulted in lower maintenance costs on the slurry pumps and a decrease in downtime.