

PRIMARY GRINDING HYDROCYCLONE VALVE SOLUTION

The WG valve extends the time between maintenance shutdowns by more than 6 months

This prestigious Mining Company was looking to optimize the time between maintenance shutdowns and increase the life of the knife gate valves installed in its primary grinding hydrocyclones in the copper ore concentrator plant

ORBINOX suggested the installation of a WG heavy-duty slurry knife gate valve, which is characterized by its very robust design sleeves. After 6 months of operation, the valve and especially the sleeves were in perfect conditions

Until now, maintenance shutdowns were taking place every three weeks. The application required a robust, heavy-duty knife gate valve to ensure a large number of cycles, thus optimizing the operation of the hydrocyclones

Application

- Primary grinding hydrocyclones

Challenges

- Solids up to 25 mm and steel ball fragments from the mill
- Large opening/closing cycles
- Sleeves life

Solution

- WG Slurry heavy-duty knife gate valve

Result

- Perfect condition sleeves after 6 months

Process Conditions

Pressure: 15 psi

Temperature: ambient

Percentage of solids: 45 %

Solid size: up to 25 mm

Flow: 5.100 – 5.992 m³/h

Cycles: 60 cycles/day

ORBINOX Proposal

WG Slurry Knife Gate Valve

Size: DN 300/12"

Body: ductile iron

Gate: 316SS

Sleeves: natural rubber

Actuator: pneumatic



"It has been very impressive to see how after 6 months the sleeves were still in perfect condition, preventing us from having to stop production"