

HIGHLY RESISTANT KNIFE GATE VALVES IN MARINE ATMOSPHERE

A prestigious phosphate mining company relies on ORBINOX for a severe slurry application in marine atmosphere.

The severe slurry knife gate valves have proven to be ideal for a phosphate mine in Peru.

Due to its proximity to the sea, the working conditions are highly saline, a very corrosive and wearing environment. The mining company required a robust valve for severe service and capable of withstanding very aggressive environmental conditions.

The valve chosen for the secondary mill hydrocyclones was the WG, known in the market for its great resistance.

Up to that point, manual valves had been installed in this application, but automated valves were now required. A control system was also installed to manage the newly installed valves.

The valves have been operating perfectly since January 2020

Application

- Secondary mill hydrocyclones

Challenges

- Severe working conditions
- Very low opening/closing cycles
- Valve automation

Solution

- Slurry heavy duty WG knife gate valve

Result

- 2 years of impeccable operation

Working conditions

Pressure: 5 psi to 25 psi max

Temperature: 25° to 40° C

Solids concentration: 16 %

Solids size: < 200 microns

Cycles: very low cycling

ORBINOX proposal

WG slurry knife gate valve

Size: DN 200 / 8 in

Body: ductile iron

Gate: 316SS

Sleeves: Natural Rubber

Actuator: pneumatic

Epoxy paint coating

