

PHOSPHORIC ACID TANK VALVE SOLUTION

How we helped one of the largest fertilizer complex with ORBINOX WG slurry heavy duty knife gate valves

Application: Phosphoric acid tanks

Challenges

- Very aggressive media
- Very low opening/closing cycles
- Blocking problems
- Sleeve wear

Solution

- WG Slurry Knife Gate Valve
- First order: 3 WG Valves

Result

- Extraordinary performance after 2 years and 10 months
- Last order: Preventive sleeve spare order on August 2019

One of the largest fertilizer complex in the world relies on ORBINOX slurry knife gate valves for their phosphoric acid tanks.

After many blocking/clogging and sleeve wear problems, this company trusted ORBINOX for this strategic application.

ORBINOX WG heavy duty knife gate valves were placed in the phosphoric acid unit in the outlet of the tanks. In what they call the "attack tanks".

"We've gone through many problems with our former valves. From media blocking problems to sleeve wear problems"

Process Conditions

Media: Phosphoric Acid Slurry.

Density: 1540 kg/m³

% solids: 29 to 35 %.

% P₂O₅: 22 to 28.

% SO₄: 2 to 3.

Maxim. Pressure: 2.6 barg.

Maxim. Temperature: 90 C.

Normal: 80 C.

Low opening cycles

ORBINOX Proposal

WG Slurry Knife Gate Valve

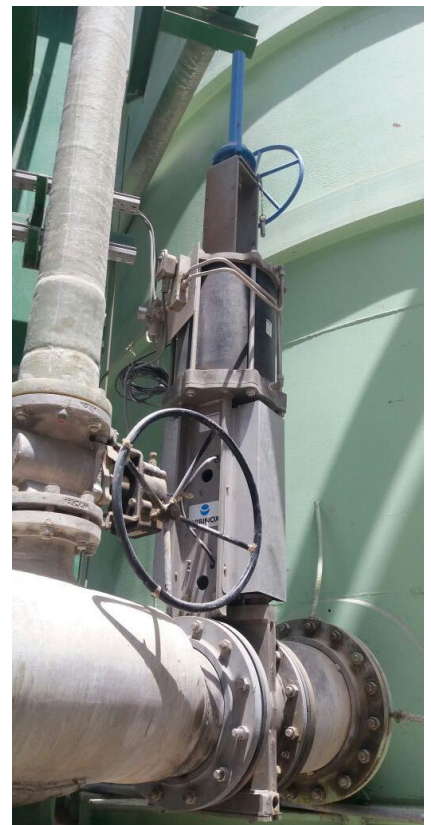
Size: DN 300/12"

Body: Fabricated 904L

Gate: 904L

Sleeves: EPDM

Actuator: Pneumatic



WG Slurry Heavy Duty Knife Gate Valves are still performing well after 2 years and 10 months