

Industry: Sewage and Water Treatment
End User: Florida Sewage & Wastewater Facility, U.S.A.
Application: Floating Tank Cover Rollers (Digester)
Thordon Grade: SXL
Date of Original Installation: November, 1997

Challenge:

During the summer, temperature and UV (Ultra Violet) radiation in Southern Florida can be higher than anywhere else in North America. Any equipment operating in the Floridian sun must be able to withstand the heat, which is why engineers at a large South Florida Sewage & Wastewater Treatment Plant were reluctant to switch to Thordon SXL Tank Rollers, until the product was thoroughly tested in their climate and on their tanks. Floating tank covers are commonly used for flocculation or other tanks in the plant where the liquid is not held at a constant level. The tank rollers are used to allow the tank covers to move up and down freely without jamming. The rollers are subjected to sludge, grit, corrosives and sunlight, causing them to wear quickly. The most common material for tank rollers is metal, which compounds the maintenance problem because metal needs to be greased regularly and frequently damages the concrete walls.



SXL Tank Roller

Solution:

The plant agreed to install two Thordon SXL rollers on one of their digester tanks. The performance would be monitored and visually inspected for signs of wear and cracking. Thordon SXL bearings have several key benefits:

- Do not require grease for lubrication
- Low coefficient of friction
- High resistance to shock loading and vibration
- Long service life under extremes of heat and UV radiation

Results:

After three years of rigorous service, the Thordon SXL tank rollers were removed and inspected. No signs of mechanical damage or noticeable chemical degradation were found, and the SXL tank rollers showed no measurable wear. The tank interior retained its original appearance with no signs of changes. As a result of the successful outcome of the inspection, and the excellent track record of performance on site, the wastewater treatment plant subsequently installed full sets of Thordon SXL rollers on two digester tanks.