

HUBER S-DRUM THICKENERS FOR TANILBA BAY WWTP

CASE STUDY



PROJECT SUMMARY

The Tanilba Bay Wastewater Treatment Works has been upgraded to improve the performance of the plant to ensure desired environmental outcomes are met and is able to cater for the projected local population growth to 2040.

HUBER S-DRUM INSTALLATION

2x Huber S-Drum thickeners were installed as part of the upgrade at Tanilba Bay and can be used in a versatile fashion as required by operations with three different thickening modes possible:

Mode 1:

Thicken waste activated sludge (WAS) from the bioreactors at 0.3% and thicken up to 5% to be sent to the aerobic digester at 11.5 l/s. Sludge wasting is undertaken during the aeration phase as to ensure solids concentration is constant for effective polymer dosing and thickening performance.

Mode 2:

Thickening of digested waste activated sludge (DWAS) from 1.5% up to 5% for storage in the sludge holding tanks meaning the timing for tankering of sludge offsite is extended as the volume of sludge is reduced significantly.

Mode 3:

Recuperative mode where thickened sludge (1.2-4% %DS) is drawn from the process tank (either digester or sludge tank) and thickened to 5%.



Polymer dose rate 5-6 kg/ tonne dry solids (effective, liquid polymer used).

Key Benefits of the S Drum:

- Sludge volume reduction by up to 80 %
- Sturdy design for high solids loads and coarse material containing sludge
- Wear-resistant and clog-free stainless steel wedge section basket
- High operational reliability due to the slow screwspeed
- Low power and spray water consumption
- No need for lubrication
- Completely encapsulated, odour-free plant
- No vibration
- Low noise < 68 dB(A)