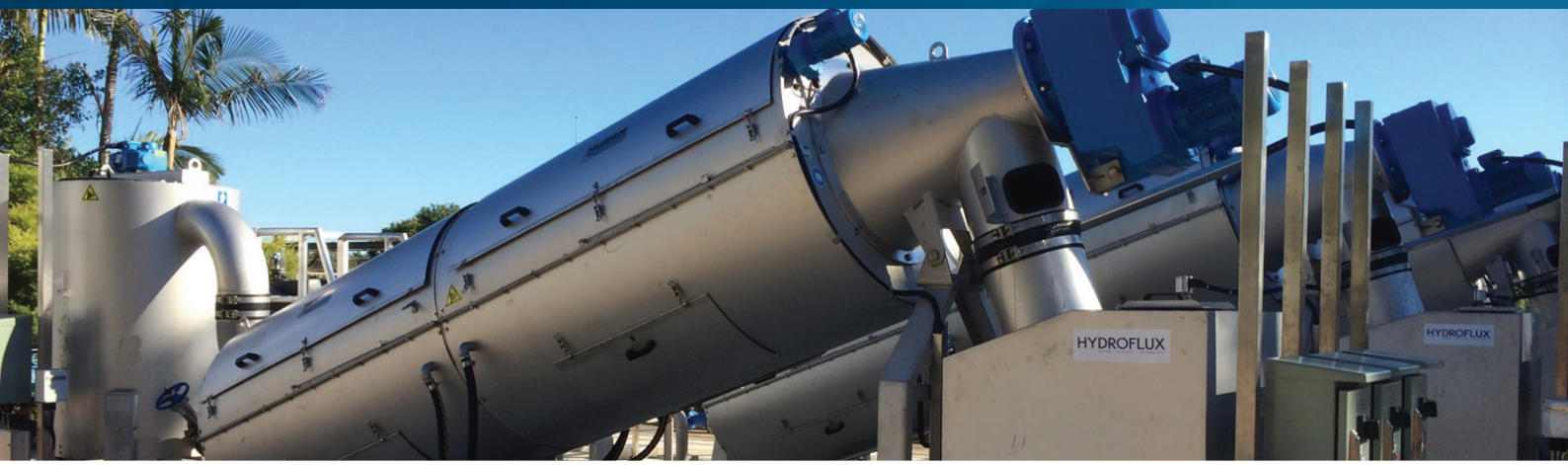
HYDROFLUX epco

INT: +61 2 9089 8833 **Toll Free:** 1300 417 697
Level 26, 44 Market Street Sydney, NSW 2000
Email: info@hydrofluxepco.com.au

GETTING MORE OUT OF ANAEROBIC DIGESTERS FOR MAROOCHYDORE STP

CASE STUDY



THE CLIENT

The Maroochydore STP which owned and operated by Unitywater, treated up to 34 millions of litres of sewage per day.

OVERVIEW

As part of a recent plant upgrade to achieve higher gas yields in the biosolids plant, Hydroflux was chosen to deliver sludge thickening equipment.

The benefits of the facility include:

- High thickening degree of 6—8%DS results in higher utilisation of digester volume
- This results in higher gas yield
- Fully enclosed equipment that can be installed outdoors, doing away with buildings
- Complete stainless steel fabrication for long life and resistance to corrosion

The technology installed is the HUBER Rotary Screw Thickener. This process uses an internal screw housed within a wedgewire drum.

As the flocculated sludge is drains through the wedgewire, the screw conveys the sludge as its thickens to its discharge point where is it pumped to the anaerobic digesters.

The unique design of the screw allows the sludge to be thickened to high concentrations, far greater than conventional drum type units.

All filtrate is captured within the machine and returned to the head of works.

The key benefit to the Maroochydore STP is that this technology achieves a very high level of thickening, as compared to other conventional thickener types.

It is also a slow speed system, the maximum speed of the internal screw is 6 rpm. This minimises routine maintenance and energy demand.

The system has been in operation since September 2014.

Item	Value
Peak Flow	85 m3/h
Average Flow	40 m3/h
Feed Solids	0.6—0.8%DS
Thickened Solids	6—8%DS