

DIGESTER HEAT EXCHANGE UPGRADE FOR MAROOCHYDORE STP

CASE STUDY



THE CLIENT

The Maroochydore STP operated by Unitywater includes a mesophilic anaerobic digester.

OVERVIEW

In order to maintain the correct temperatures within the digester, between 35—38°C, a heat exchanger is used on a portion of the sludge stream.

The heat system was upgraded by Hydroflux Epco to include the design, supply, installation and commissioning a new heat exchange system.

The heat exchanger is provided with necessary temperature sensors & control valves that control the heat transfers between the hot & cold media.

The temperature sensors are located upstream & downstream of the sludge heat exchanger in the sludge re-circulation line to continuously monitor the inlet and outlet temperature of the sludge heat exchanger.

The hot water to be used for heating the sludge is supplied at 85 to 90°C from the existing boiler. The hot water from the boiler shall be mixed with the cooler return water from the sludge heat exchanger by an actuated 3-way temperature control valve.

Key Benefits:

- Extensive expertise in sludge digestion equipment with over 80 references.
- Self contained unit.
- Maintaining optimum digester temperatures
- Full design and install turnkey package

Item	Value
Recirculation Pumps	33 L/s
Heat Exchanger	Tube in Tube type
Sludge Muncher	Inline

