



# WTP MELBOURNE

## Municipal WWTP / Sector 160 S

700,000 P.E. /  $Q_{inlet}$  140,000 m<sup>3</sup>/d



1897 opened Melbourne's first WWTP: Located at the Werribee Farm, the sewage was initially drained on paddocks. 1935 the first lagoons started operation. Today one of the most environmentally friendly sewage treatment plants in Australia can be found at this location: "Western Treatment Plant", which produces class A recycled water.

NUMBER OF TANKS	4
TOTAL VOLUME	58,000 m <sup>3</sup>
WATER DEPTH	5.32 m
SOTR (Standard Oxygen Transfer Rate)	max. 7,660 kg O <sub>2</sub> /h
TOTAL AIRFLOW	max. 76,640 Nm <sup>3</sup> /h
TOTAL AEROSTRIP® DIFFUSERS	1,712

## AEROSTRIP® GOES DOWN UNDER

AEROSTRIP® diffusers use a unique polyurethane membrane, which achieves an air bubble size of only 1 mm. Thus, the introduced atmospheric oxygen is used to the maximum, which leads to up to 45 % less air and energy requirements compared to conventional diffusers.

The special polyurethane mixture contains no plasticizers or fillers: These are typical for EPDM diffusers, which become brittle within a few years. The elastic strength of AEROSTRIP® membranes is also much higher than of silicone.

The Western Treatment Plant has benefited from these properties since 2018. The local AEROSTRIP® partner was awarded the contract for aeration technology of the new biological stage (140 ML/d), which features a modern treatment process for nitrogen removal at low oxygen demand:



In total, 1,712 AEROSTRIP®s type Q4 are installed in four new aeration tanks.

The performance of AEROSTRIP® diffusers has been confirmed by independent experts by running several oxygen transfer tests at the manufacturer's test facility.

# AEROSTRIP®

fine bubble diffusers by AQUACONSULT