

Bolivar Water Treatment Plant — Treatment Tank liner Bolts

APPLYING TORQUE TO FASTENERS IN
DIFFICULT-TO-REACH PLACES

About the Bolivar Water Treatment Plant

SA Water is a leader in sewage treatment in South Australia, managing and treating millions of litres of sewage every year.

The Bolivar Water Treatment plant is one of the three major wastewater treatment plants servicing the Adelaide region, treating around 140 megalitres of wastewater each day.

The Problem — Confined Space

The waste treatment tanks at the Bolivar Water Treatment plant are part of an integral step in the wastewater treatment system. They must remain operational to manage incoming daily waste.

The service technicians at the plant conduct maintenance operations inside the treatment tanks, which includes torquing multiple tank liner bolts. Initially, a hand spanner was used due to space limitations within the tanks which restricted the use of a conventional torque wrench.

The use of the hand spanner made it impossible to precisely apply and measure the required 630 Nm of torque required for each bolt. This led to increased servicing times, inaccurate bolt torque, and increased risk of slip and strain injuries.

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Image: Equipment servicing in a confined space with limited access.



Image: Difficult to access bolts.

The solution removed dangerous slip and strain risks and allowed for torquing of bolts accurately and comfortably in the difficult to access spaces inside the tanks.

Image: The Norbar Torque Wrench 40–200 Nm used with the Norbar HandTorque HT-3 1000 Multiplier. Combined, they provide easy access to bolts on the treatment tanks.



Searching For a Solution

The SA Water contractor began to search for a solution that would improve the efficiency and allow for more accurate torquing of the tank liner bolts.

Norbar Torque Tools was approached and asked to recommend a safe and reliable solution. After reviewing the application, the known issues, and assessing all methods of torque control following a tool trial on-site, Norbar proposed the 15004 Torque Wrench 40–200 Nm HT3 coupled with the 1000 HandTorque Multiplier.

The Outcome

The compact, lightweight multiplier and small torque wrench combination is ideal for accessing bolts inside the confined tanks, and has provided the following benefits:

- **Efficient** — Accurate torquing of the tank liner bolts.
- **Safe** — No more use of a small inefficient spanner or larger clumsy wrench, plus the reduction of slip and strain risks. The solution supports the customers continuous improvement strategies and OH&S requirements.
- **Optimised** — The solution was selected to achieve the 630 Nm needed for the operation, while keeping the tools as lightweight as possible.



**DECREASED
SERVICING TIME**



**OH&S RISK
REDUCTION**



**IMPROVED
ACCURACY**

Find out more about these products:

- › **Norbar Torque Wrench 40–200 Nm**
- › **HandTorque® HT3-1000 Torque Multiplier**

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