

How M Group successfully delivered a trunk main replacement programme

Find out how Sunbelt Rentals played a pivotal role in supporting Morrison Water Services (MWS) throughout a challenging strategic trunk main replacement programme which employed innovative no-dig techniques to minimise community disruption.

£21m

Over £21million
of investment

2.4k

of main pipe
replaced

150

Replacing pipes
that are over 150
years old



Supplies tens
of thousands of
homes

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A large Victorian metallic pipe in north London had failed on several occasions causing flooding and supply issues in a heavily populated area.

Sunbelt Rentals had previously supported the contractor, Morrison Water Services (MWS), on several similarly complex and challenging projects and their expertise was called upon once more to assist.

Challenges

Due to the location of the existing pipe, there were challenges with accessibility, coupled with a need to minimise disruption to the local residents. To do this and to minimise the footprint of the work carried out, MWS employed no dig techniques to install a new 900mm polyethylene plastic pipe. With 2.4km of main to replace, this avoided the need for open cut trenches and months of road, business, and customer disruption.

With the intricate nature of the project and the requirement for zero downtime, high levels of technical support were crucial to the scheme's success.

Solution

Sunbelt Rentals Utilities division has a long-standing relationship with both MWS and the Project Manager, Tom Shanahan, having worked on a number of large projects over many years.

Given the complexity of the project and drawing on MWS's prior experience with Sunbelt Rentals, MWS knew that they could call on Sunbelt's expertise to assist. MWS's early engagement started out with a site visit by Sunbelt's Utilities Project Team to assess the site and utilise their specialist knowledge to provide the most appropriate solution for this complex and challenging project.

With joint integrity and equipment reliability being paramount, MWS enlisted the McElroy Tracstar 900 from Sunbelt's butt fusion range. The Tracstar 900 is a self-contained, self-propelled, all-terrain fusion machine with an on-board generator. It has the capability of fusing PE pipe up to a diameter of 900mm.

MWS also used one of Sunbelt's BDI units (bead diagnostic instrument) which tests the integrity of the butt fusion bead. Unlike the bend back test, which assesses beads intermittently, the BDI evaluates up to 95% of the bead, ensuring controlled and recorded tests. Data is captured via an app and can be linked to weld data for asset control.

Additionally, via its Training Division, Sunbelt Rentals, arranged and delivered certified training on pipe welding and associated standards for the MWS machine operatives.

As part of an ongoing support package Sunbelt's senior engineering team were in regular contact with the team at MWS, conducting planned site visits and maintenance as necessary to ensure the project ran smoothly.

Our equipment at a glance:

- McElroy Tracstar 900 Butt Fusion Machine
- Bead Diagnostic Instrument

“ This has been a great example of a project team pulling together to solve a complex issue. Traditional open cut installation of this main would have caused huge disruption to the community, but using no dig technology has led to a highly successful installation.

Sunbelt has, once again, been invaluable in providing reliable equipment, expertise, and support throughout the project.

Tom Shanahan

Project Manager, Morrison Water Services

Result

Key to the success of no-dig technologies is having confidence in the strength of the butt fusion joints. Data uploaded from the McElroy Tracstar 900 Butt Fusion machine to the McElroy vault allowed progress and joint quality to be monitored in real time, providing the reassurance required.

Through early engagement and continuous collaboration, every phase of the project was successfully completed.

