

Pipe pulling SA's oldest pipes



TT Asia Pacific and leading pipe renewal specialist Interflow recently used the GRUNDOBURST pipe rehabilitation system for a renewal project in Adelaide on behalf of SA Water.

AT OVER 6 km, the scope of replacement works was extensive. It would consist of numerous pulls with varying lengths using a specialist application known as pipe reduction. Although not new to Australia, pipe reduction technology has been evolving in recent years.

The developments include the use of compact, powerful systems such as the unique GRUNDOBURST 1250G from Tracto-Technik.

Tracto-Technik has been a leading manufacturer of Trenchless Technology products for over 50 years and offers a wide range of rehabilitation technology throughout the world. TT Asia Pacific is a sister company to Tracto-Technik and supplies the Australia and Pacific regions.

Interflow purchased the GRUNDOBURST 1250G system from TT Asia Pacific's head office in Brisbane.

The GRUNDOBURST 1250G enables contractors to reduce costs due to fast set-up times and quick installation speeds. The system features a unique QUICKLOCK ladder rod design and a patented constant tension rod transfer system.

PUTTING GRUNDOBURST TO THE TEST

Projects were undertaken at Marion and Holbrook roads in challenging urban areas with high traffic volumes. This meant a compact, versatile system was required to reduce space on-site and ensure that popular arterial roads into the city could be kept flowing with ease.

The existing locking bar, a 600 mm mild steel, concrete-lined trunk watermain, was installed in 1898 and is the oldest locking bar steel pipe in South Australia. Due to the criticality and age of the main, SA Water had decided to renew the asset.

The new product pipe chosen was to be an HDPE DN560, PE 100, which would be pulled through a reducing dye to temporarily reduce its diameter. This allows the new HDPE pipe to be pulled through the existing pipe with the GRUNDOBURST system until it reaches the retrieval pit. The pulling force is then removed, allowing the new pipe to return naturally towards its original diameter until it presses closely against the wall of the existing main.

Initial above ground trials were undertaken by TT Asia Pacific and Interflow personnel to simulate the pipe behavior prior to work commencing on the initial 250 m line.

Once complete, the GRUNDOBURST 1250G was set behind extension frames in the start pit and the complete string of quicklock rods were inserted into the host pipe with ease and at an impressive speed.

During this time the reduction dye was set up and installed at the retrieval pit and upon arrival of the pilot push head a quick connection was made to the GRUNDOLOG tensile load-measuring device and then to the pulling head connected to the product pipe.

The GRUNDOLOG system enables the contractor to measure and record the pull data and tensile loads exerted onto the product pipe, which could then in turn be downloaded and stored for future records if required.

The pulling in process with the GRUNDOBURST went very smoothly, with pulling forces encountered all within the capabilities of the system/pulling rig. The complete string of product pipe was installed quickly and efficiently to the delight of all present on site.

TT Asia Pacific personnel, along with a product specialist from Tracto-Technik's head office in Germany, were present during the initial installation process to assist with the technical transfer and were pleased to work alongside the experienced and professional crews at Interflow.

For further information on GRUNDOBURST systems or any additional products available from the TT Group, contact the head office based in Brisbane on +61 7 3420 5455.

