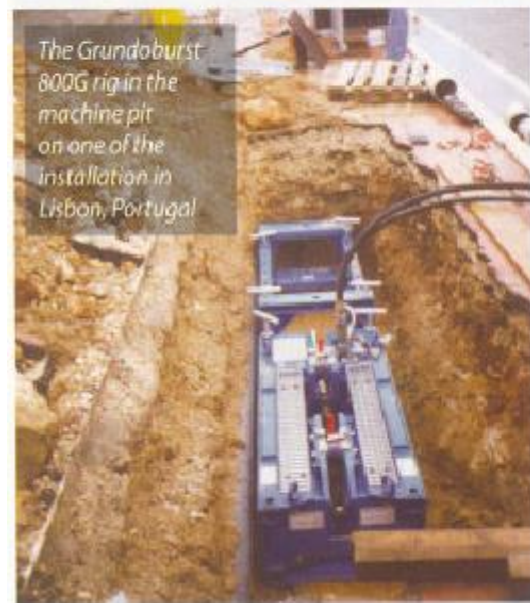


PORTUGAL

Contractor Toupeira Verde, already known in Portugal as a specialist in horizontal directional drilling, recently entered the pipe bursting market using a Tracto-Technik



The Grundoburst 800G rig in the machine pit on one of the installations in Lisbon, Portugal

Grundoburst 800 G. An example of a recent project situated at Cascais, a very rich residential and tourist area near the sea, in the suburbs of Lisbon, was the replacement

of a 250 mm o.d. PVC pipe (280 mm diameter o.d. at the joints), which continually burst due to its less than adequate pressure capability, with 280 mm diameter higher pressure capability HDPE pipe over a length of 1,100 m with just 0.8 m ground cover, comprising 11 installations of roughly 100 m each. To install the new main, pullback forces of between 15 and 28 t would be required.

A special problem arose during the Lisbon works due to the particular way that the former pipes had been installed with backfilled soil being poorly compacted. A small trench had been originally dug into rock to house the pipe and the trench backfilled. Due to these limitations, the extremely shallow depth of the pipe and the existence of other buried services such

as a PVC rainwater drainage pipe laying just 200 mm from the one being replaced, upsizing for the new installation was a problem. Only a slight increase in the diameter of the new pipe was possible

under such circumstances.

The Grundoburst static hydraulic pipe rehabilitation process is suitable even for replacing virtually all varieties of old pipes including steel and ductile iron pipes. The current range of Grundoburst includes 40, 80, 125, and 250 t rigs. Custom-designed, heavy duty solid steel rods with non locking threads are thrust into the old pipe until a full string of rods is created. The Tracto-Technik patented QuickLock rods save time and reduce the number of operators on the job and are maintenance and wear free.

According to Toupeira Verde it has decided to invest in the pipe bursting technology because of its major advantages as a trenchless technique including reduction in disruption to both traffic and the general public and, as important as any of the environmental advantages, the technology is generally cheaper to utilise.

Edited by Ian Clarke – TTC Consultant Editor from information supplied by Tracto-Technik, Germany