Pipe bursting with pulling force measurement

In the Swiss city Stäfa nearby Zurich a fresh water line was renewed trenchless with a cable burster TERRA-EXTRACTOR X 400. The old pipe from cast iron DI 100 mm (4”) was cut with a roller cutter. A new HDPE pipe OD 160 mm (6.3”) was pulled in.

The Water Authorities dictated the continuous measurement of the pulling force at the new pipe. The measurement unit is assembled between the expander cone and the new pipe. It transmits the effective pulling force during operation to a locator. This locator shows the position, the depth and the pulling force at the new pipe. Additional the maximum allowed pulling force is continuously shown. All data are saved. Later on these data are sent via a Bluetooth connection to a laptop which can print a diagram.

The roller cutter with expander cone, protection sleeve over the measurement unit and the new pipe.

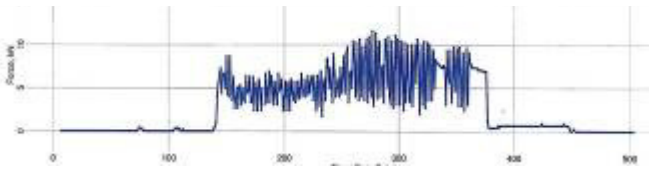
The cable burster is driven by a hydraulic power pack. The pulling cable is wound up onto a drum.

Cable Burster
TERRA-EXTRACTOR X 400

The roller cutter reaches the machine pit.

The cable burster was moved backwards in the machine pit, so that the expander cone and the new pipe can be disassembled. The new pipe can be connected to the fresh water system.

The measurement unit is assembled between the expander cone and the expander jack. The protection sleeve protects the measurement unit from damage through the broken fragments of the old pipe.



The diagram with the pulling forces can be printed from the laptop.

The display of the locater shows the pulling force and other relevant data. These data are transmitted to the monitor (display) to inform the operator continuously about the pulling force at the new pipe.

TERRA AG, Hauptstrasse 92, 6260 Reiden, Switzerland, tel.: +41-62-749 10 10, tax: +41-62-749 10 11
e-mail: office@terra-eu.eu, internet: www.terra-eu.eu