



Pipe bundle ø 360 mm (14") laid underneath a small river

In the little Swiss city Mümliswil the TERRA-JET 2808 S laid a pipe bundle consisting of three pipes underneath the "Mümliswiler Bach" (small river in Mümliswil). This pipe bundle consisted of a protection pipe OD 132 mm (5.2") for electricity, a protection pipe OD 92 mm (3.6") for fibre optic and a pressure pipe OD 63 mm (2.5") for water. The pilot bore had to be reamed in steps up to ø 360 mm (14"). Then the pipe bundle could be pulled in.

This HDD bore was done by the contractor Candoni from Günsberg. Since many years Candoni is a specialist for trenchless pipe and cable laying.



The drilling fluid is mixed. Besides the special Bentonite other additives were used to improve the quality.



View on to the job site. You can see the starting and arrival point, the small river flows in between.







The TERRA-JET 2808 S is loaded on to a truck. Alternatively it can be transported on a trailer with ramps.







Start of the pilot bore. The 3 finger head is suitable for hard and stony ground.



The 49 m (162 ft) long pilot bore was reamed with these two backreamers up to  $\emptyset$  215 mm (8.5") and then finally to  $\emptyset$  360 mm (14").



The backreamer ø 360 mm (14") with pipe bundle (1x OD 132 mm, 1x OD 92 mm, 1x DA 63mm)



The operator concentrates for the pilot bore.



The intermedium reaming  $\emptyset$  215 mm (8.5) begins.



View onto the arrival pit before pipe pulling.





The rack and pinion drive has proved its value also at this jobsite. It provides thrust and backream forces of 80 kN (8 tons, 17'600 lbs).



The pipe pulling begins.



The backreamer ø 360 mm (14") has pulled in the pipe bundle over 49 m (162 ft) successfully.



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