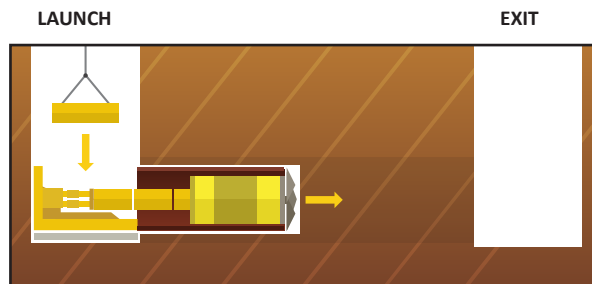
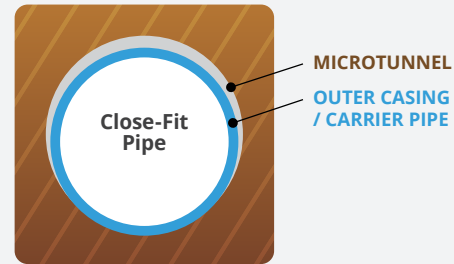


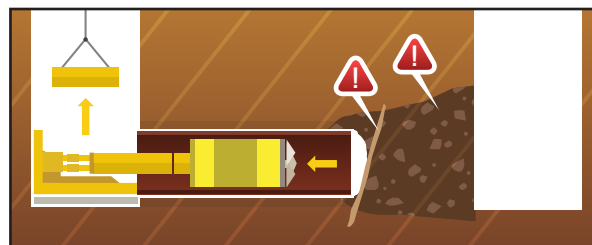
Using a retractable head for the Close-Fit Bore Section with a temporary outer casing, e.g. for:

- GRP Pipe Jacking for sewer
- Concrete Jacking Pipe for stormwater



Microtunnel

Head is inside front sleeve



Forward Progress Stopped

- Obstruction encountered
- Change of Ground
- Head Failure

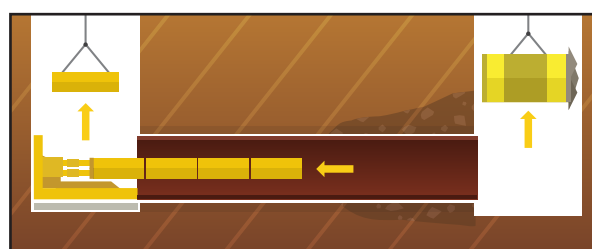
Head retracts while the outer casings remain in place to support the ground.



Situation Remedied

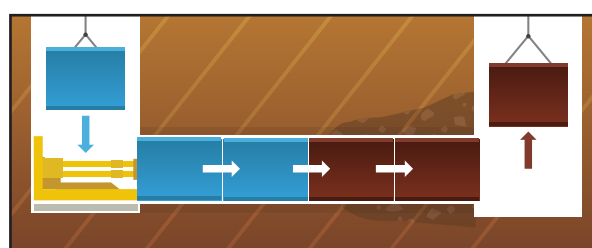
- Obstruction removed
- Cutters replaces
- Head Repaired

Head pushed back to the face and microtunnelling recommenced.



Complete the Bore

To the exit Shaft and remove the head **OR** retract the head back to the launch shaft. Outer casing is now in place.



Permanent Outer Casings

Carrier Pipes are jacked in to replace the temporary outer casing.

E.g. Temporary steel casings are replaced by concrete jacking pipes under a railway.