



NJUG CASE STUDY

CASE STUDY 19 – Vacuum Excavator

The National Joint Utilities Group (NJUG) is the UK industry association representing utilities on street works issues. The thirty-seven utility companies¹ we represent work to deliver gas, electricity, water and telecommunications to both individual consumers and UK plc.

NJUG members need to continue to drive forward further improvements. We have therefore developed the NJUG Vision for Street Works, which revolves around six main principles:

1. Safety is the number one priority
2. Damage to underground assets is avoided
3. Utilities work together and in partnership with local authorities to minimise disruption
4. Utilities deliver consistent high quality
5. Utilities maximise the use of sustainable methods and materials
6. Street works in the UK are regarded as world class

This case study is an example of NJUG delivering on these principles and turning the vision into a reality.

Gas Alliance



Overview:

The West Midlands Gas Alliance was formed in 2005 when National Grid signed an eight-year contract with Morgan Est to replace approximately 2,800km of distribution gas mains and services within the West Midlands area. Since its creation, the West Midlands Gas Alliance has prided itself on its safe working record. As part of this safety drive, much emphasis has been placed on the ambition to avoid damage to other utilities' plant.

Case Study:

In March 2007, the Gas Alliance started a vacuum excavation trial which revolutionised excavation within the West Midlands. The trial proved that vacuum excavation offers a safer method of excavating whilst reducing the risk of damage to underground plant and cables. The successful feedback from operational staff and managers prompted the West Midlands Gas Alliance to increase the number of machines.

¹ NJUG's current members are Energy Networks Association (representing electricity and gas), Water UK (representing all water and wastewater companies), National Grid, Openreach, and Virgin Media. Our associate members are Clancy Docwra, Skanska McNicholas, Balfour Beatty, Morrison, Morgan Est, NACAP, PJ Keary, First Intervention, Carillion, Enterprise and Laing O'Rourke. Including members through trade associations, NJUG represents thirty-seven utility companies.



Employing vacuum excavators in the West Midlands has reduced the amount of underground damage and solidifies the Gas Alliance's commitment to adopting best practice to avoiding damage to underground assets. The benefits of the units include:

- Increased operational safety associated with excavating – less need for access and egress.
- Less manual effort, avoidance of strains and sprains to operatives.
- Reduced excavation sizes – less excavated site spoil to be tipped or recycled which has a considerable positive impact on the environment.
- No excess spoil – no danger of contamination into surface water or drains.
- Faster and more efficient excavation compared to traditional manual methods – projects are completed far quicker which results in minimum disruption to the customer, members of the public, and the environment.

Since the vacuum excavator has been deployed the amount of plant damages has fallen dramatically. There are now 4 vacuum excavators operating within the West Midlands Gas Alliance

The success of the use of vacuum excavation is demonstrated below:

