

Micro Vacuum Excavator Around Tree Roots

Tree root systems are complex, vast and deep. Historically, excavating within these areas has been a slow and difficult task to ensure minimal impact and damage.

Even when the greatest of care is taken, there is still a high chance many smaller roots being severed, potentially shortening the life of the tree. This risk is also increased when working around groups of trees with intersecting root systems.

At Tarvin WwTW, electrical cables needed to be exposed for site works to proceed. As the location was within a Root Protection Area (RPA), vacuum excavation (Vac-Ex) was the preferred method of excavation. Due to restricted access to the area, a full size Vac-Ex vehicle would have had to be sited within the RPA, causing compaction of the root system. Compaction poses a significant health risk to the trees and could reduce its lifespan. So what was done on site.....



Use of Mini Vac-Ex around tree roots



Due to planning and consideration prior to commencing the activity - a 'Micro' Vac-Ex unit was sourced. This ensured minimal compaction when working within the RPA and had the additional bonus of greater manoeuvrability around the excavation. This provided better access to persons undertaking the task and allowed other plant to move more freely.

The team using this unit said it had comparable performance to the full-size counterparts and was the right tool for the job.

Benefits of Vac-ex

These benefits illustrate how innovation can help us reduce our environmental impact. Using a vac-ex for excavation around tree roots on our sites could lead to reducing carbon release, reducing harm to biodiversity, and reducing potential nuisance complaints from local residents and decreasing our pollution risks. To determine if a vac ex is mandatory for the site activity refer to the [Vacuum Excavation Decision Tree](#) (CDPD34-04) and [guidance document HSGD15-11](#).

For more information on protection of trees see:

- [Environmental Guidance Document - Protection of Trees and Hedgerows](#)
- [Environmental Poster - Site Working Near/On Trees](#)
- [Environmental ToolboxTalk - Working Around Trees](#)
- [Environmental ToolboxTalk - Working Around Hedgerows](#)

For help please speak to your regional Environmental Advisor.

