

## TOOLBOX TALK #26

### TRENCH BOX INSTALLATION

According to OSHA, one option to utilize when working more than 5 feet below grade is a trench box or trench shield. Shields must comply with the following:

- Be certified by a professional engineer if the trench is more than 20 feet deep.
- Reach at least 18 inches above the soil surface.
- Rest no more than 2 feet from the trench bottom when added to the slope dimensions.
- Withstand the soil type pressure of your projects.



Before excavating a trench, consider the following:

- Assess the weights, widths and internal dimensions a shield box can handle according to the owner's manual.
- Clear the area of other workers before lowering or lifting materials.
- Inspect trench shield pieces before each use.
- Locate any underground components like pipes and electrical lines before digging.
- Use certified lift equipment operated by trained personnel.

Here are a few other safety tips to be aware of during the installation process:

- Attach hooks properly.
- Backfill any voids between the outside panels and the trench to prevent ground movement.
- Don't adjust the struts without the box lying flat.
- Don't use excessive force to push down the panels farther into the trench.
- Double check that the pins and clips are securely fitted.
- Ensure no one is in the box when installing or extracting.
- Install handrail panels once the box reaches its required depth for increased safety measures.
- Lay the trench box flat before taking it apart.
- Only lift at the designated lifting and handling points.
- Only push the panels in the corners by using the bucket of an excavator.
- Use a secure ladder to enter and exit the trench, and never leave the designated safety zone.
- Wear personal protective equipment like a hard hat, steel-toed boots, gloves and a reflective vest.

Trench boxes are crucial for any excavation project, no matter the line of work. Proper trench box installation methods and safe practices are what can make all the difference to ensure the shields protect you and your workers throughout each project.