**Trench Box Safety Tips**

There is always a risk associated with trench work, but you can mitigate it. To keep workers safe and protected from cave-ins, trench boxes can be used in trench and excavation projects.

Below are some tips to keep you safe while using or working around trench boxes:

* **Refer to the manufacturer's tabulated data.** It is essential to use a trench box within its tabulated data.
  + A trench box should not be used at a depth greater than the maximum depth it is rated for. Neglecting to build the box properly is another example. The manufacturer's tabulated data will assist the contractor with trench configuration, assembly, and placement.
* **Watch the bottom.** A cave-in from below is possible if the box is more than 2 feet above the ground. Additionally, make sure that the trench box is rated for the entire depth of the trench.
* **Watch the top.** Contractors who use sloping in conjunction with trench boxes must typically lift the trench box 18 inches above the soil at the point where the shield intersects the soil.
* **Spreader pipes and trench box panels should be replaced if they are damaged.** The spreader pipe is one of the shield components that should be routinely inspected. When an excavator raises or moves the trench box using the spreader pipe instead of the actual lift points, the spreader pipe can get bent or damaged. Before resuming service, the manufacturer or engineer must be consulted if the shield has actual or potential structural damage.
* **Install panels or plates in the right place.** Always follow the engineering guidelines that address end protection if a contractor uses trench shield panels as end panels.
  + Panels should not be placed directly against spreader pipes. During a cave-in, the panels are designed to push against the trench box posts, not against the spreader pipes, which could deflect, compromising the protective system.
  + It is important to deploy trench boxes according to tabulated data from the manufacturer or from a registered professional engineer.
* **Stack with care.** It is essential to align the stacking pockets and pin the trench boxes together when stacking trench boxes so they can be secured vertically. Thinner trench boxes usually go on top of thicker trench boxes, but always refer to a manufacturer's or professional engineer's tabulated data if there are different thicknesses of trench boxes.
* **Backfill the gap.** Ensure the shield is stabilized by filling in the void to eliminate the gap. Always remember that the shield must be situated to restrict lateral or other hazardous movements.
* **It's not enough to rely on a trench box to prevent cave-ins.** Trench boxes are protective systems that keep workers safe; they are not active shoring designed to prevent trench walls from collapsing. Contractors should use a system that applies a load to the trench wall greater than the earthen load coming from the trench wall for trench work sites that require both worker protection and active shoring. This may include hydraulic bracing systems.