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EDTTEX PILE SERIES

The EDTTEX pile consists of a steel pipe attached to a patented drill tip of equal diameter which is filled with structural concrete after installation. EDTTEX piles can also utilize steel reinforcement inside the pipe to provide additional capacity and a structural connection to the foundation. EDTTEX piles are installed through down crowd and torque, which allow the patented tip to cut through the soil and displace it around the pipe. EDTTEX piles can also be installed in low overhead conditions by splicing and adding sections of pipe as the pile is installed. EDTTEX piles are ideal to accommodate high loads or limited headroom while eliminating noise, vibration and drill spoils.

Advantages of EDTTEX Piles:

- **Vibration Free:** EDTTEX piles do not generate vibration during installation and drastically reduce risks associated with working in close proximity to adjacent structures, new construction or sensitive equipment.
- **Noise Reduction:** EDTTEX pile installation equipment typically operates at around 85 db, which significantly reduces impact on surrounding entities (i.e. residential units, hospitals, businesses, etc.).
- **Soil Displacement:** EDTTEX piles displace soil during installation, which increases the skin friction capacity of the pile and eliminates drill spoils. No haul-off and disposal of spoils reduces project costs, especially if contaminated soils are present.
- **Full Length Steel Pipe Casing:** EDTTEX piles consist of a full length permanent casing. This full length casing ensures that EDTTEX piles maintain a uniform section even in loose sands, poor soils and site profiles with a high water table where casing conditions can otherwise be a concern. The full length casing also permits inspection for the presence of water or deleterious material prior to placement of concrete infill.
- **Increased Lateral and Tension Capacities:** EDTTEX piles provide high lateral and tension capacities because the steel pipe is a permanent component of the pile. The steel pipes are installed in a multitude of diameters and wall thicknesses that can accommodate significant lateral and uplift loads.
- **Low Overhead / Limited Access:** EDTTEX piles can be installed in existing structures with minimum overhead clearances as low as 10' overall. The installation rig is approximately 9' wide x 25' long x 9' tall and is capable of installing 20" diameter piles in low overhead conditions.



Oyster Point Marina Plaza—San Francisco, CA

EDTTEX PILE ADVANTAGES:

- NO PILE DRIVING NOISE OR VIBRATION
- SOIL DISPLACEMENT (NO DRILL SPOILS GENERATED)
- COMPOSITE PIPE PILE SECTION WITH HIGH CAPACITY
- LOW OVERHEAD PILE INSTALLATION CAPABILITIES
- DOT / CALTRANS PRE-APPROVED
- UNAFFECTED BY HIGH WATER TABLE, LOOSE SANDS, OR POOR SOILS

EDTTEX Pile Dimensions:

Standard dimensions of EDTTEX Piles shown as inches (mm)*

Pipe / Drill Tip Diameter

- Ø 12-3/4 in (324 mm)
- Ø 14 in (355 mm)
- Ø 16 in (406 mm)
- Ø 18 in (457 mm)
- Ø 20 in (508 mm)

*Standard dimensions only, additional sizes are available if required.

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Installation Methods:

Step 1

A steel pipe casing of the appropriate diameter, wall thickness, and length is placed into the rotary head / drill table. The length of this section is dependent on site constraints and equipment selected for the project.

Step 2

The patented displacement drill tip is welded onto the bottom of the steel pipe casing providing a watertight connection.

Step 3

The drill table begins to force the EDTTEX pile into the ground by means of constant vertical crowd combined with rotary torque. If site access permits, EDTTEX piles will typically be installed in one full length piece to design depth. When overhead clearance is limited (i.e. seismic retrofits) the first section is installed until sufficient headroom is created. A second section of steel pipe casing is then spliced onto the previously installed piece prior to further advancement. Depending on overall pile length, this process is repeated until the required depth is achieved.

Step 4

After EDTTEX piles have been installed to tip elevation, the pipe is cut to top of pile elevation and the pile cap connection devices / reinforcing steel is placed as required. Structural concrete is then placed inside the pipe to complete the pile.



Example EDTTEX Tip

EDTTEx Pile Applications:

- Structural improvement of existing foundation structures during expansion and/or renovation.
- Seismic Retrofitting of infrastructure and other structures.
- Installation of piles in refineries or chemical plants where deep foundations are required in hazardous areas or projects are located above contaminated soils.
- Within existing structures with low overhead clearances (i.e. hospitals, parking garages, high rise buildings, etc.)
- Structures situated above very unstable or liquefiable soil conditions.
- Projects which require deep foundations in or near existing structures where noise, overhead clearance and vibration are of paramount concern.
- Projects with significant tension, compression and lateral load demands.
- Projects with contaminated soils or sites where soil haul-off is not cost effective.



CSU Housing Expansion—Chico, CA