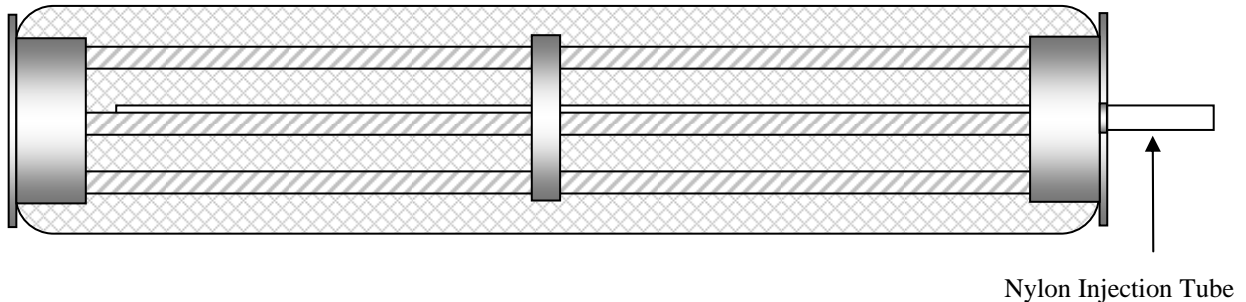


# Cintec Multibar Piles © Method Statement



## **DESIGN:**

Using trial hole information the engineer will design the Cintec pile to act as a friction pile or end bearing pile according to the load requirements and the nature of the substrate in the piled area.

The anchor pile will consist of either 6mm, 8mm, 10mm or 12mm tendons of stainless steel deformed bar to achieve the necessary design load. The borehole diameter and length will be similarly calculated, but this will typically be 76mm, 86mm, 96mm, or 102mm diameter.

## **DRILLING**

Carefully set out the anchor position, as per specifications, or as directed by the structural engineer or supervisor.

Using Diamond core bit or Auger Drill, drill the hole to the specified diameter and required depth of the anchor into approved material

## **Anchor insertion**

Carefully unpack the anchor and check there has been no damage to the fabric sock during transit.

Immediately prior to insertion wet the anchor completely with clean water, and position the sock evenly along the length of the anchor.

Place the anchor in the bore hole and carefully insert the anchor to the correct depth. Any obstruction in the bore hole must be cleared with the diamond drill / Auger or suitable rod not the Cintec anchor.

## **GROUT MIXING**

The grout is packed in 25 kg. bags and is mixed with clean cold water.

The normal mixing ratio is 5.5 ltrs. of water to one 25 kg. bag of grout. One 25kg bag will yield 16ltrs of fluid grout when mixed.

The 5.5 ltrs. of water can be increased by 10% (550ml) in hot weather (20°C +) or when the substrate is very dry and porous or the injection process is through very small injection tubes.

Do not increase the water content outside of these parameters as this will considerably weaken the strength of the set grout.

The grout must be mixed as follows :-

Place 5 ltrs. of clean/cold water into a clean mixing bucket and slowly add approx. 3/4 of one bag of Presstec grout while mixing.

Add a further ½ lt. of water (to make up the required 5.5ltrs.) and the remaining grout. Continually mix the grout for 4 minutes removing all the dry mixture from the sides of the bucket.

Allow the mixture to stand for 5 minutes, during which the mixture will start to thicken, the amount the mixture thickens will depend on the ambient temperature and the temperature of the dry grout and water.

At this stage some or all of the 10% extra water may be added to achieve a smooth creamy texture with no peaks forming on the surface.

Pour the mixed grout into the pressure pot through the sieve.

Pressurize the pot from 3 bar to 5 bar dependent on the type and length of anchor being installed.

Cut the plastic mastic nozzle to fit the anchors orifice. On anchors with injection tubes, prime the tube with water and cut the mastic nozzle to fit over the injection tube.

Test the grout flow into a suitable bucket. If the grout flow is continuous and of sufficient pressure the anchor can be injected.

Carefully push the nozzle into the anchors orifice or over the injection tube, and position the anchor to the specified depth (minimum 25mm when using small bore holes and 50mm when replacing stone core, beyond face of Stonework).

Turn on the control valve and the grout will flow to the rear of the anchor and inflate the sock along the length of the anchor to the front.

Move the anchor in a circular motion to facilitate the grout flow and to ensure the anchor is centred in the borehole upon completion.

At this stage the anchor will be felt to be locking in the bore hole and a grout milk will appear at the front of the anchor (note the colour change in the sock).

Use a sponge or cloth during this process to soak up the excess grout milk and avoid the milk running down the face of the brickwork/stonework.

At this stage start to slowly withdraw the injection tube until the anchor has fully inflated the tube can then be completely removed and a suitable plug inserted in the front plate to prevent any grout dripping onto the face stonework.

Please note that the anchor is not fully inflated until the grout milk has stopped flowing through the sock. Pressure must be maintained to allow this to be achieved. With large injection orifices a suitable plug must be placed in the injection port immediately after removing the nozzle.

**Eye protection must be worn when mixing and injecting grout!**

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