

## 7.8 TPE-03 permanent ground anchors



*Bulb of the TPE 03 permanent anchor*

**TPE-03 permanent anchors** are produced in compliance with the **Ministerial Decree as of 14.01.2008, Decree no. 12391 22.12.2011**, and with the European and Italian Standards.

The **TPE-03** ground anchor is usually used in the construction of bulkheads and diaphragms, where the type of ground needs permanent anchors to be installed.

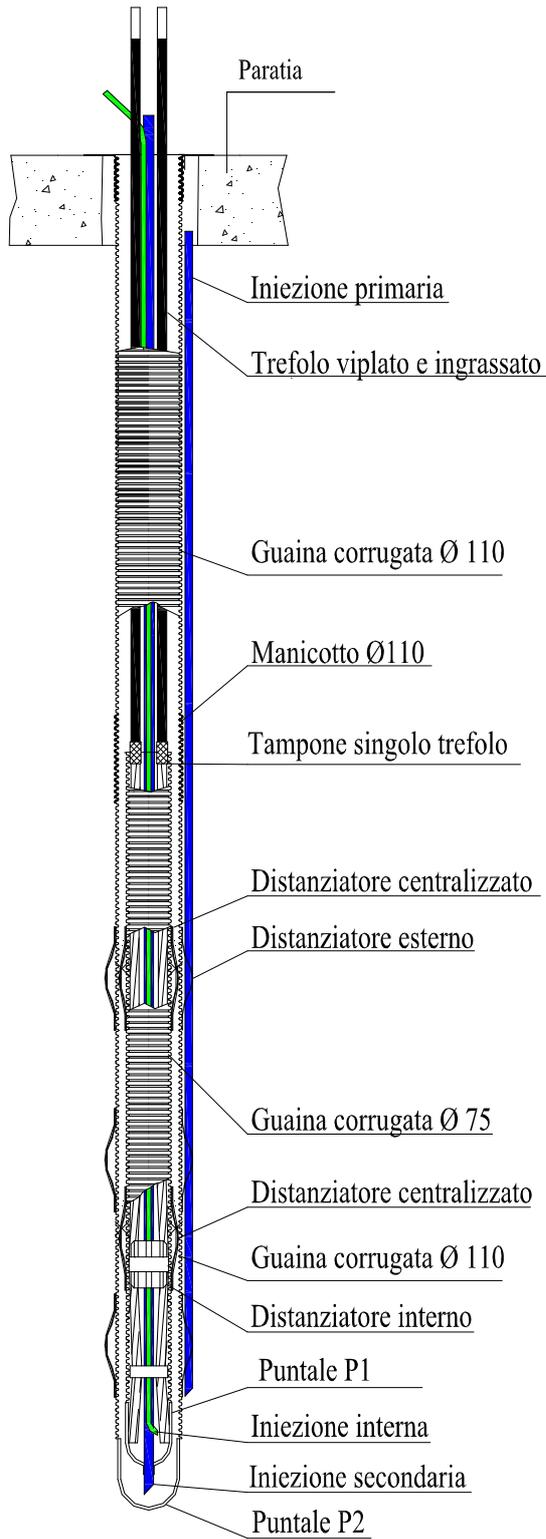
The **TPE-03** ground anchors are defined permanent as their expected design life is over two years.



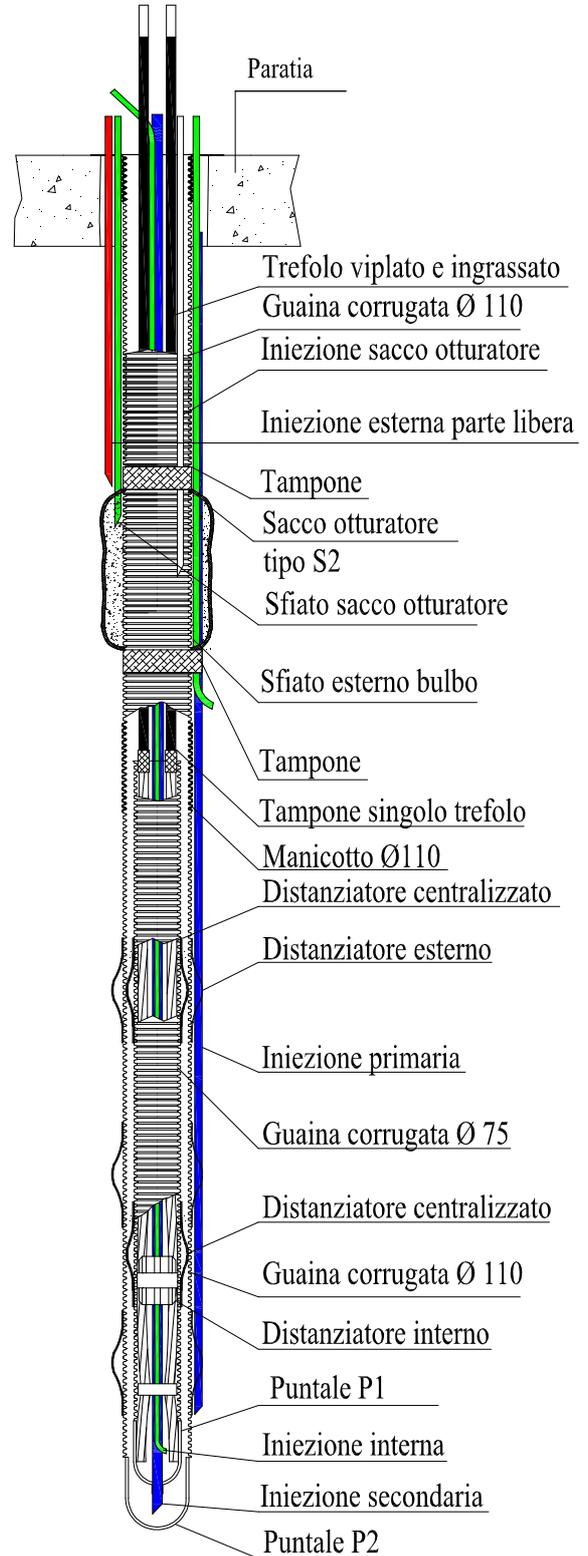
### **The anchor is made as follows:**

- In the active part, the strands are separated by special spacers which guarantee the tendon to maintain a sinusoidal shape. By means of suitable strapping and/or taping, the sinusoidal shape of the tendon increases the adherence with the foundation cement mix. Grouting takes place via 16x20 mm polyethylene/polypropylene tubes that can guarantee a max. operating grouting pressure of 10 bar at 40°C and a burst pressure of 15 bar at 40°C.
- The free length is protected by inserting a H.D.P.E. corrugated sheath. Inside, strands are protected by greasing and sheathing by means of 16x19.5 mm tubes. The separation of the free length from the active part is achieved by way of a buffer of sealing material, which allows both parts to be perfectly hermetic and can be applied on each strand or globally on all strands.
- The end part of the anchor is provided with a polyethylene ogive to ease its insertion into the drilling hole and guarantee its total encapsulation.

**TPE-03A permanent ground anchors**

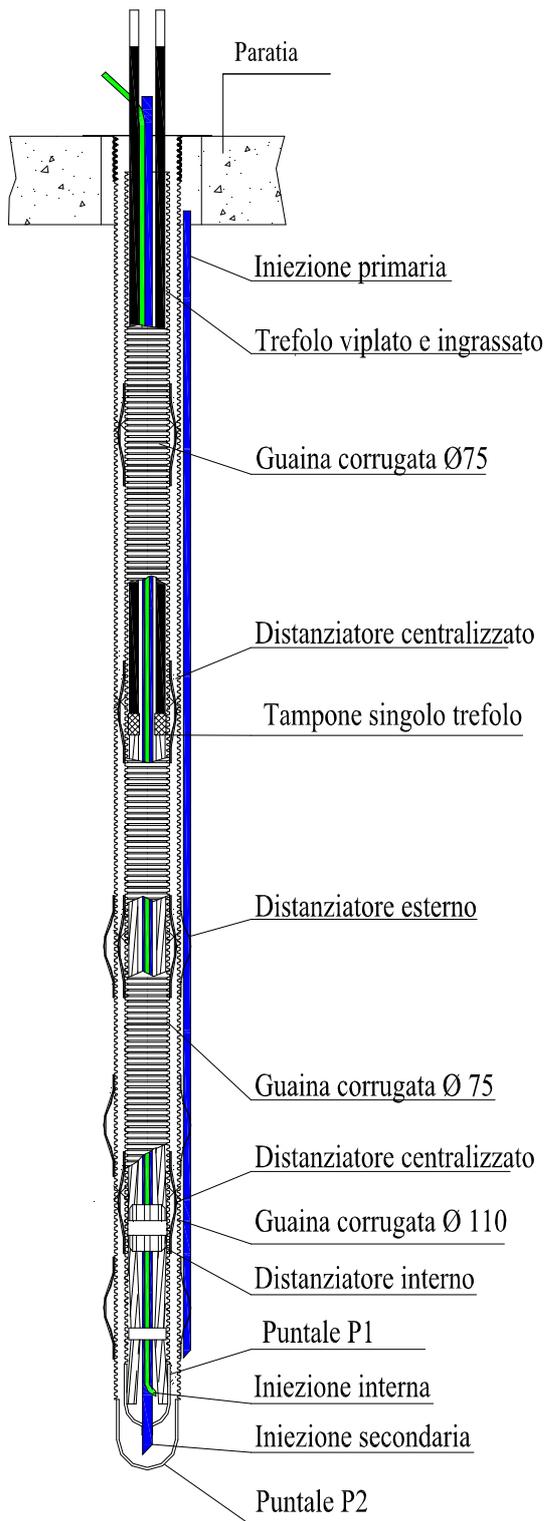


TPE 03A

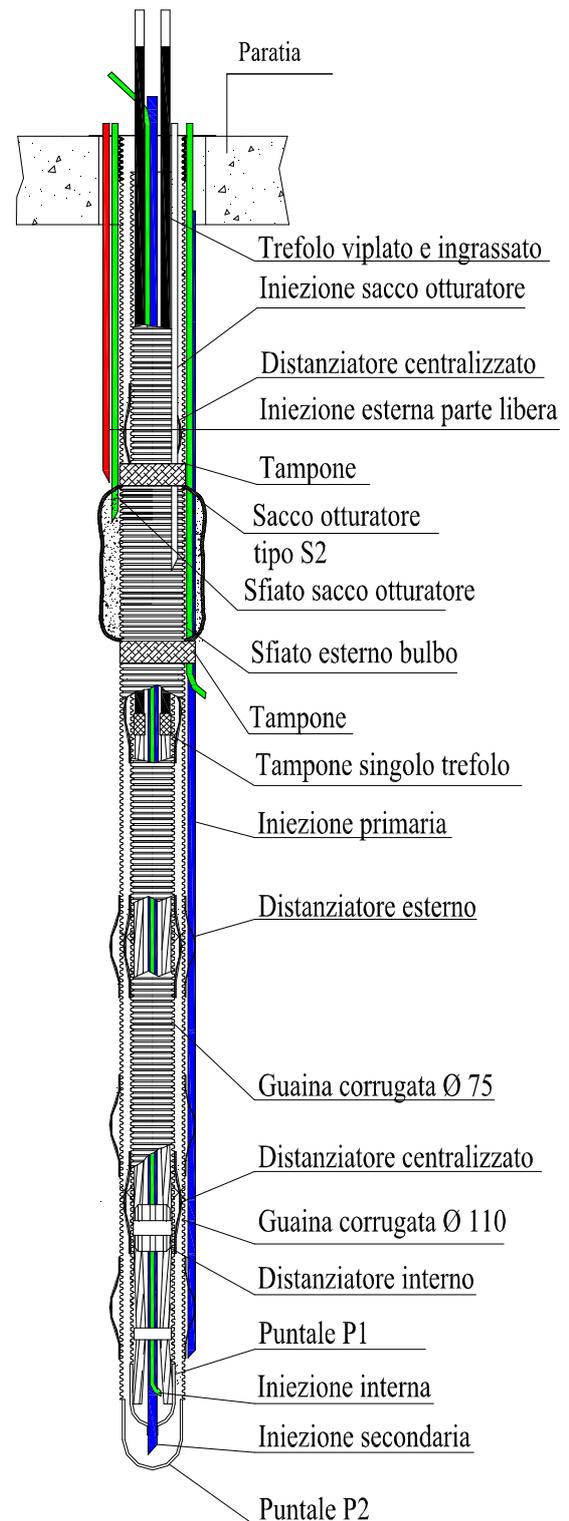


TPE 03A (S2 packer)

The **TPE-03A** anchor is provided with a double corrugated sheath on the foundation and a corrugated sheath on the free length. Grouting takes place via 3 tubes, for the external primary, bulb internal and between the two sheath grouting respectively. This version is provided with elementary buffers on each strand. This anchor can be installed from min. 2 to max. 5 strands.



TPE 03B



TPE 03B (S2 packer)

The **TPE-03-B** anchor is provided with a double corrugated sheath on the foundation . Grouting takes place via three tubes, for the external primary, foundation and into the annulus of the two sheath grouting respectively. This version is provided with elementary buffers on each strand. This anchor can be installed from min. 2 to max. 4 strands.