

GENERAL

Corrosion of buried structures is a continuous problem faced by facility operators, resulting in enormous costs every year in equipment monitoring, maintenance and repair. Cathodic protection can assist in reducing this type of corrosion, but it is often difficult to evaluate the effectiveness of such measures, or to have a clear understanding of the unseen corrosion environment present in a facility.

The Caproco Electrical Resistance Soil Probe is designed to monitor the corrosion rate of buried pipelines, storage tanks and structures, providing operators with a clearer understanding of the corrosive conditions present in the underground environment and provide feedback on the effectiveness of cathodic protection systems.

The probe utilizes the electrical resistance technique of corrosion monitoring. The ER element is comprised of a thin walled tube, machined from a single length of bar, which overcomes any requirements of welding the element. Resistance readings from the sensing element are relative to a non-corroding reference element sealed within the probe body.

APPLICATION

Designed to be directly buried in pipeline trenches or under storage tanks, the Caproco soil probe is completely sealed to prohibit the ingress of moisture, ensuring its reliability and performance. Each probe is supplied with a grounding cable and when connected to the cathodic protection system via a test post, or directly to the pipe or structure, the effectiveness of the cathodic protection system can be determined. To monitor the corrosivity of the environment without the effect of a cathodic protection system, the grounding cable is left unconnected.

SPECIFICATIONS

Caproco soil probes are manufactured with a phenolic body and an AISI 1018 mild steel element. Probe elements are available in alternative materials upon request. The standard soil probe comes complete with a 10 ft (3m) cable (extra lead lengths are available up to 1,000 ft (300m)). Two types of sensing elements are available.

Element Type	T 20 - Normal Sensitivity T10 - High Sensitivity
ENCAPSULATION	Two part loaded resin with excellent thermal, electrical and mechanical properties.
CONNECTION	Interfaces with the Caproco ER Analyzer and most other commercial ER monitoring instrumentation, via a MIL standard 6 pin receptacle.



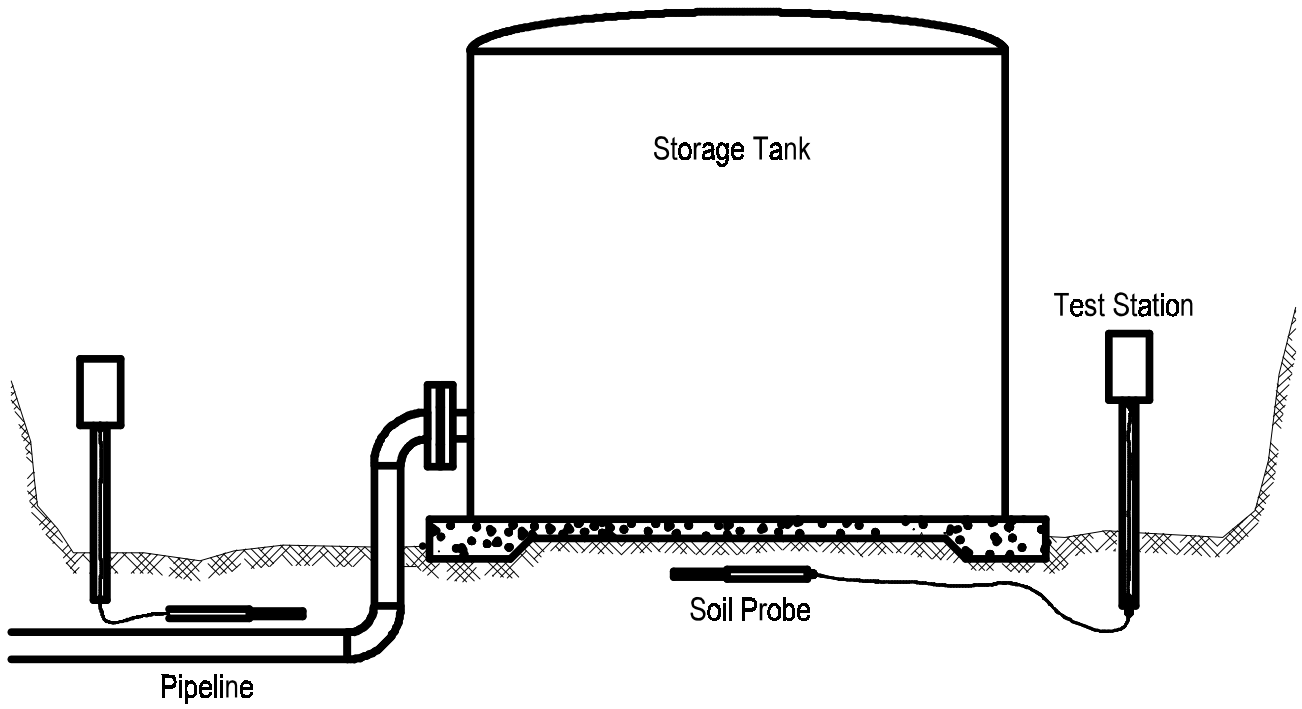


ILLUSTRATION OF TYPICAL INSTALLATION