

Inclinometer Casing

Inclinometers are used to monitor subsurface deformations of soil and structures. An inclinometer consists of two components: inclinometer casing and an inclinometer readout system.

Casing Functions

Inclinometer casing is installed in boreholes, embedded in fills, or cast into retaining walls or piles. It provides subsurface access for the inclinometer sensor and is designed to conform to deformation of the ground. Guide grooves inside the casing control the orientation of the sensor and provide a uniform surface for measurements.

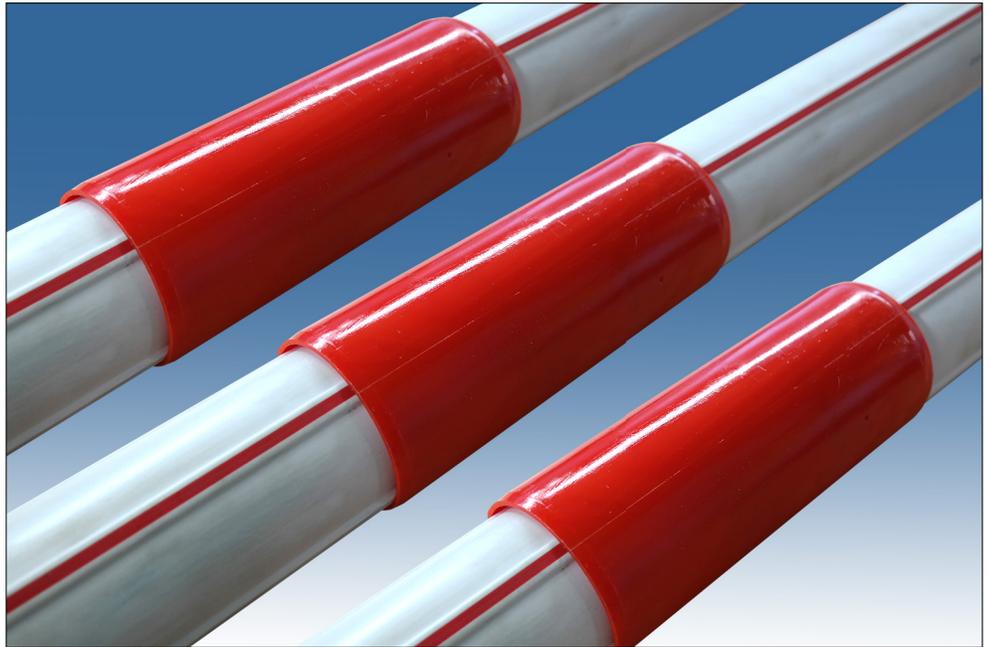
Casing Features

Designed for maximum utility, Red-Stripe casing can be cut-and-coupled anywhere along its length. External splines ensure proper alignment and provide strong, twist-proof joints. The full-length red stripe helps installers maintain proper orientation of the casing. Made from ABS plastic, the casing conforms to ground movements, remains ductile in cold weather, and is impervious to most ground chemistry.

Coupling Features

Red-Stripe couplings fit directly onto full diameter casing ends to create strong, twist-proof joints.

The self-locking couplings reduce installation time by eliminating the need for rivets.



Casing Installation

Boreholes: A borehole is drilled to stable ground. Casing is oriented toward the expected direction of movement and installed downhole. Once the casing is in place, the annulus is backfilled with grout.

Fills and Embankments: The first section of casing is oriented properly in stable ground. Casing sections are added as the embankment rises. Soil must be hand-compacted around the casing after each lift.

Diaphragm walls or Piles: A steel pipe, plugged at both ends, is tied to the rebar cage. After the wall is concreted, the plug is removed and the inclinometer casing is installed inside the steel pipe.

Advantages

- Strong, twist proof joints ensure that guide grooves remain aligned during installation.
- Convenient red stripe helps installers orient the casing properly.
- Cut-and-connect assembly reduces wastage and makes repairs and extensions easy.
- Simple design eliminates problems with lost o-rings and damaged casing ends.
- Self-locking couplings reduce installation time by eliminating the need for rivets.
- Fully compatible with all inclinometer probes and in-place inclinometers.

Casing Section..... INP610

Material:	ABS plastic.
Length:	10 ft (3 m)
OD:	2.75" (71.0 mm)
ID:	2.36" (60.0 mm)
Weight:	4.7 lb (2.1 kg)
Spiral:	< 0.6°/ 10 (3 m)

Coupling..... INP630

Self-locking coupling eliminates the need for drilling and riveting. Coupling is simply pushed onto the casing section.

Material:	ABS plastic.
OD:	3.03" (77 mm).
Length:	7.9" (200 mm)
Weight:	0.44 lb (0.20 kg).

Top Cap INP640

Conical Bottom Cap..... INP650

Grout Valve..... INP660

Use in place of the bottom cap when it is necessary to inject grout backfill through the casing rather than outside the casing. Mates with a grout pipe.