



**SELF-ALIGNING COUPLINGS  
COMPATIBLE WITH ALL INCLINOMETER PROBES  
MANUFACTURED TO TIGHT TOLERANCE**

GTI-1A inclinometer casings are made of extruded ABS. The alignment key engages the internal alignment groove of the coupling. Couplings are assembled with solvent cement and rivets.

#### Description

The **GTI-1A** inclinometer casing is an extruded ABS pipe with four internal orthogonal grooves and an external alignment key. When installed in a borehole, one set of grooves is aligned in the anticipated direction of movement. The grooves act as guides for the wheels of the inclinometer probe, maintaining the orientation of the probe as it traverses the casing.

The alignment key of the **GTI-1A** inclinometer casing engages the internal alignment groove of the coupling. Couplings are assembled with solvent cement and rivets.

Spiral surveys may be performed on deep installations, or where high accuracy is critical. Spiral data allows inclinometer data to be corrected for twisting of the casing that may occur during installation.

#### Guiding

Probe guidance is ensured by four 3-mm internal grooves spaced 90 degrees apart. The high accuracy guidance achieved with the GTI-1A casing produces quality measurements similar to those obtained with other high quality casings. The orientation accuracy is affected more by the measuring equipment itself than by the casing.

#### Key Features

- Self-aligning couplings
- Manufactured to tight tolerances
- Extrusion process is tightly controlled
- Consistent groove profile and spiral control
- Compatible with all inclinometer probes

#### Applications

- Monitoring of movement in retaining walls, diaphragm walls, sheet piles and laterally loaded piles
- Monitoring of dam and embankment performances
- Measuring of ground movement due to tunneling
- Monitoring of settlement in landfills, tank foundations and embankments
- Monitoring of landslide

### Specifications

#### CASING

OD	60 mm
Minimal ID	48.5 mm
Groove ID	54 mm
Standard length	3 m
Material	ABS
Weight	0.8 kg/m

#### COUPLING

OD	68 mm
ID	60 mm
Standard length	350 mm
Weight	0.270 kg

#### TOP AND BOTTOM CAPS

Material	ABS and PVC
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### Installation

#### Axial deformation

GTI-1A casing length must be assembled so that no gap exists between the coupling and the casing. The standard GTI-1A casing is not suitable for highly compressible soils. In these cases, GEO-LOK telescoping casing are required. The ratio of the effective section versus the total external section entails an equivalent modulus elasticity of 1000 MPa.

#### Sealing and grouting

Sealing method and grout composition are generally defined by the user. The GTI-1A casing can withstand an external grout pressure greater than a 50-meter column of cement grout, provided that the casing is filled with water. Deeper installation will require grouting in stages.

### Ordering Information

Please specify:

- # of 3m sections
- # of couplings
- # top and bottom caps