Inclinometer Casing

Model 7040

The HMA Geotechnical Inclinometer Casing is used as access tubing for the Model 7000 Inclinometer Probe.

APPLICATIONS

Used in conjuction with the Model 7000 Inclinometer Probe to measure displacements and inclination associated with slip planes, landslide, slope stability, dam walls, pilings and other large scale excavations.

OPERATING PRINCIPLE

The Geotechnical Systems Australia Inclinometer Casing functions primarily as an accurate guide for the Model 7000 Inclinometer Probe. The Inclinometer Casing consists of four equally spaced, precision-machined internal grooves, which guide the inclinometer probe along the length of the borehole.

When ground movement occurs, the casing is also displaced. Traversing the probe along its length reveals changes in its profile. The rate, depth and extent of these changes are calculated by comparing current readings to initial readings.

FEATURES

- Compatible with all standard inclinometer probes
- Self aligning and self coupling
- Detachable and reusable
- Flexible, impact resistant ABS plastic
- Accurately machined grooves
- Quick and simple assembly
- Flush coupled
- Highly visible yellow colour

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Inclinometer Casing

SPECIFICATIONS

Length	3000 mm
Outer Diameter	70 mm
Inner Diameter	58.50 mm
Wall Thickness	5.75 mm
Material	ABS (Acrylonitrile Butadiene Styrene)
Colour	Yellow
Modulus (at 20°C)	2000 MPa
Pack Size (12 lengths)	3080 mm x 400 mm x 200 mm
Weight of Pack (12 lengths)	45 kg

ASSEMBLY

The assembly of the Geotechnical Systems Australia Inclinometer Casing is quick and simple. Each length of casing has a male and female end fitting which eliminates the need for couplings.

As shown in the diagram, each casing length snaps tightly onto the next. The key located on the male end fitting ensures that each casing length accurately aligns with the next, and the connection between adjacent lengths is flush coupled. Each connection is sealed with a watertight O-Ring seal. Once the adjacent lengths are snapped together, a thin plastic strip is fed through a hole into a machined groove within the connection. The thin plastic strip locks the connection and resists the tensile forces associated with the placement of the lengths.

An important feature of the connection is the plastic strip that can be easily removed. This means that the casing can be detached, removed and then reused, should an obstruction be encountered during installation. Flush coupled caps are fitted to the bottom of the casing.

The inclinometer casing is preferably assembled just above the collar and then fed into the borehole. Sequential lengths of casing are added and progressively lowered into the borehole until the desired depth is reached. Once the desired depth has been reached, the inclinometer casing is grouted in. To assist with placement, the inclinometer casing is filled with water to offset buoyancy affects associated with existing water in the borehole.

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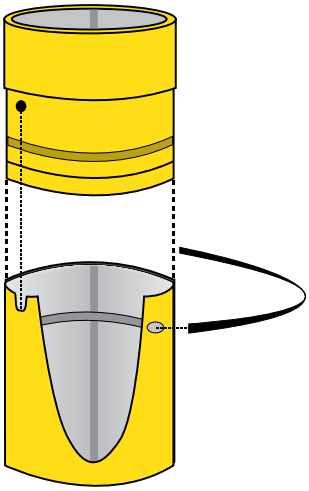

1. Snap male coupling to female coupling.

2. Insert Retaining strip through the hole and feed into the groove.

ANCILLARY EQUIPMENT

- Inclinometer Probe (Model 7000)
- Inclinometer Winch System (Model 7010-7030)

ORDERING INFORMATION

When ordering please specify the model number and length of casing required. For any special requirements, please contact the HMA Geotechnical Head Office.

Note: HMA Geotechnical is continually improving its products and processes, information contained within this brochure is subject to change without notice

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