



## **FLUSH-COUPLED INCLINOMETER CASING**

Inclinometer casing is a special grooved tube, generally installed in a borehole, used in conjunction with inclinometer systems to monitor horizontal soil movements.

Flush-coupled inclinometer casing is a special ABS grooved tube, machined at the end to have a self-aligning junction. It is produced from high-quality virgin ABS plastic.

During manufacturing particular attention is paid to minimise the spiral of the casing grooves and to machine the aligning key for casing junction with self-aligning couplings.

Casing sections are assembled by means of couplings glued together, riveted and sealed with special tape.

### **APPLICATIONS**

To measure horizontal deformations in soil, rock or structure

To realise a combined inclinometer-settlement column either in embankment or in soft soil

To detect rock deformations even by mobile extensometer

To be installed horizontally within embankment for settlement monitoring

# FLUSH-COUPLED INCLINOMETER CASING

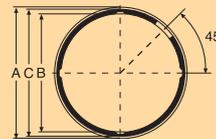
## ACCESSORIES AND COMPONENTS

<b>OS100CH1000</b>	<b>Inclinometer lockable top cap</b>	Lockable protective cap with point to assist in topographical surveying to define and check position of borehole. It also provides temporary fixing for S1CSU10000 pulley and cable stop during inclinometer measurements
<b>OS141TS7000</b>	<b>Top/bottom cap</b>	Simple cap to prevent tube clogging
<b>OS1CSU10000</b>	<b>Pulley and cable stop</b>	Fixed to the top of the casing and used to hold the cable during measurements
<b>OS1CLK15000</b>	<b>Casing clamp</b>	Used to hold the casing string during installation. Kit includes two clamps
<b>OS1ABKIT200</b>	<b>Casing assembly kit</b>	Suitable for 100 m of casing it includes all consumable materials: pop rivets, sealing tape, adhesive tape and cement
<b>OS100VF5400</b>	<b>Bottom grout valve</b>	Permits grouting through the casing by means of a removable injection valve
<b>OS100VR0000</b>	<b>Removable injection valve</b>	Mounted on a string of pipes, it is used with the bottom grout valve to the grouting
<b>OS1RINV7000</b>	<b>Tail sheave and pulley</b>	Used in horizontal inclinometer installation to permit the probe retrieval by pulling wire
<b>OS141ST0700</b>	<b>Telescopic section, 75 mm</b>	3 meter section with 75 mm gap (3")
<b>OS141ST1500</b>	<b>Telescopic section, 150 mm</b>	3 meter section with 150 mm gap (6")
<b>OS131AM6000</b>	<b>Magnetic settlement ring</b>	Fixed externally to ABS casing and grouted into the borehole, the ring will allow settlement to be determined. ID 71 mm
<b>OS141DR7000</b>	<b>Datum reference section</b>	It provides datum point in borehole for inclinometer-settlement column

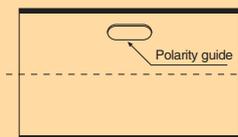
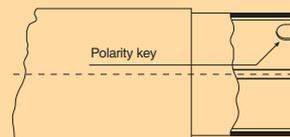
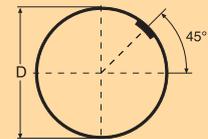
## TECHNICAL SPECIFICATIONS

	Metric (mm)	English (inch)
<b>A</b> Casing OD	70	2.75
<b>B</b> Casing ID	59	2.32
<b>C</b> Casing guide ID	61,5	2.42
Thickness	5,5	0.2
Casing length	3 meter	
Weight	1.2 kg/meter	
<b>D</b> Coupling OD	70	2.75
Coupling length	200	7,87
Weight	0.25 kg	
Material	ABS plastic	
Casing colour	white	
Spiral	< 0.6°/3 meter	
Load test (1)	> 300 kg	
Collapse test (2)	15 bar	
Temperature range	- 20°C + 80°C	

**Inclinometer casing  
OS141107000**



**Self-aligning coupling  
OS141MF7000**



Casing-coupling connection

1. Pulling test is made suspending a weight at the casing-coupling joints.
2. Tests are performed in a water pressure chamber with an empty casing sealed at the two ends.

## EXTENSO-INCLINOMETER CASING

S141 model ABS casing is suitable to realise a special extenso-inclinometer tube for high-precision measurements in borehole. Measuring targets are special rings which are externally attached to ABS casing every meter. Measurements are taken metre by metre inserting into the casing the T-REX mobile extensometer and the inclinometer probe for obtaining a detailed cumulative and accurate 3-D borehole profile.

<b>OREXORING93</b>	Measuring ring to install every meter - Nominal OD: 93 mm - Material: PVC with permanent magnets
<b>OREXODIMA00</b>	Jig for rings installation
<b>OREXOTS2350</b>	T-REX top cap
<b>OS141TS7000</b>	Top/bottom cap



T-REX ring

