

S151

— QUICK JOINT INCLINOMETER CASING

INCLINOMETERS
& PENDULUMS



QUICK JOINT INCLINOMETER CASING

Sisgeo QJ casing is an alternative to the traditional inclinometer tubes, mainly designed for earth-fill and rock-fill dams, and deep borehole applications.

QJ tube offers simple and fast installation, consistent joint and deeper tube grooves. O-rings prevent ingress of grout or water.

The fitted-at-factory coupling and the alignment keys assure a perfect grooves continuity.


Telescopic section and a variety of settlement rings for either borehole and embankment installations permit to combine inclinometer and settlement measurements in one borehole.

APPLICATIONS

- Earth-fill and rock-fill dams
- Deep borehole installations
- Landslides
- Diaphragms and retaining walls
- Embankments
- Deep excavations
- Tunneling

FEATURES

- Simple assembling, no rivets, tape or glue required
- Fast installation reducing costs and drilling-rig stand-by
- Heavy duty, suitable for extreme installations
- High precise and deep tube grooves
- Available a special settlement plate for rock-fill dams

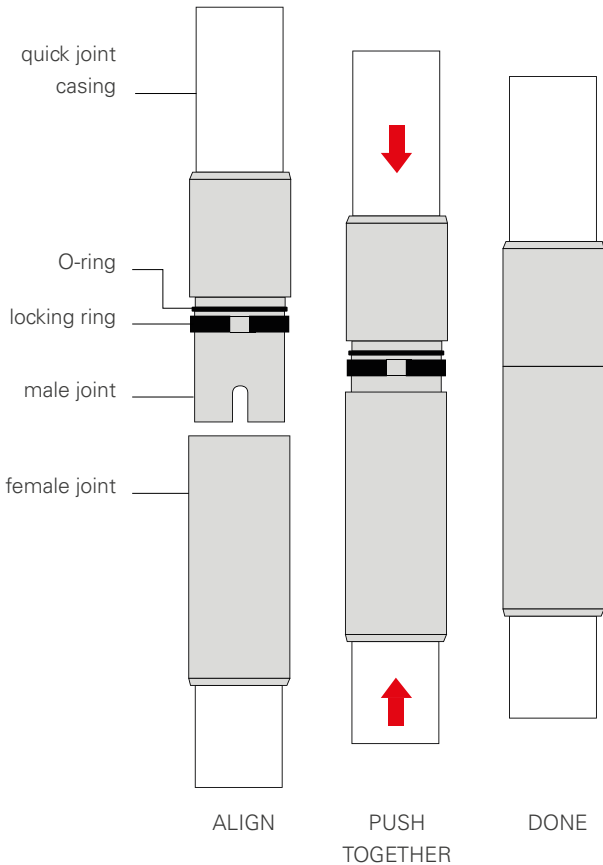
 Meet the essential requirements of the EMC Directive 2004/108/EC

TECHNICAL SPECIFICATIONS

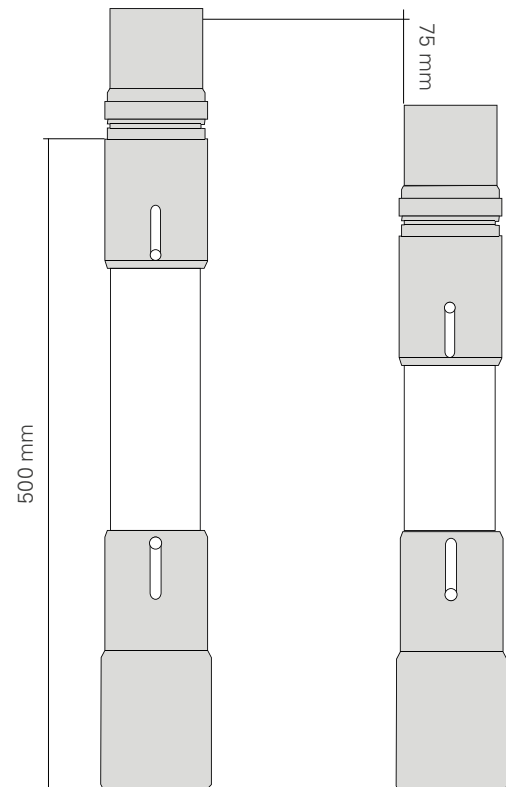
| | MODEL 0S151107000 | MODEL 0S151MT0700 |
|--------------------------|---------------------------------------|---|
| Description | Standard QJ section | QJ Telescopic section 75 mm gap (3") |
| Tube outer diameter | 70 mm (2.75") | 70 mm (2.75") |
| Tube inner diameter | 59 mm (2.32") | 59 mm (2.32") |
| Tube groove ID | 63 mm | 63 mm |
| Overall section length | 3100 mm | 500 mm |
| Overall diameter | 84 mm | 84 mm |
| Thickness | 5.5 mm | 5.5 mm |
| Material | ABS (Acrylonitrile Butadiene Styrene) | ABS (Acrylonitrile Butadiene Styrene) |
| Colour | white/red | white/red |
| Spiral (1) | < 0.6° / 3 meter | - |
| Collapse test (2) | 15 bar | 15 bar |
| Temperature (max 1 hour) | +80°C (176 °F) | +80°C (176 °F) |
| Max working load (3) | > 500 Kg | > 500 Kg |

(1) During manufacturing particular attention is paid to minimise the spiral of the casing grooves and to machine the couplings.
 (2) Test was performed in a water pressure chamber with empty casing sealed at the two ends.
 (3) Pulling test is performed on a two QJ tube sections jointed together under a thrusting machine.

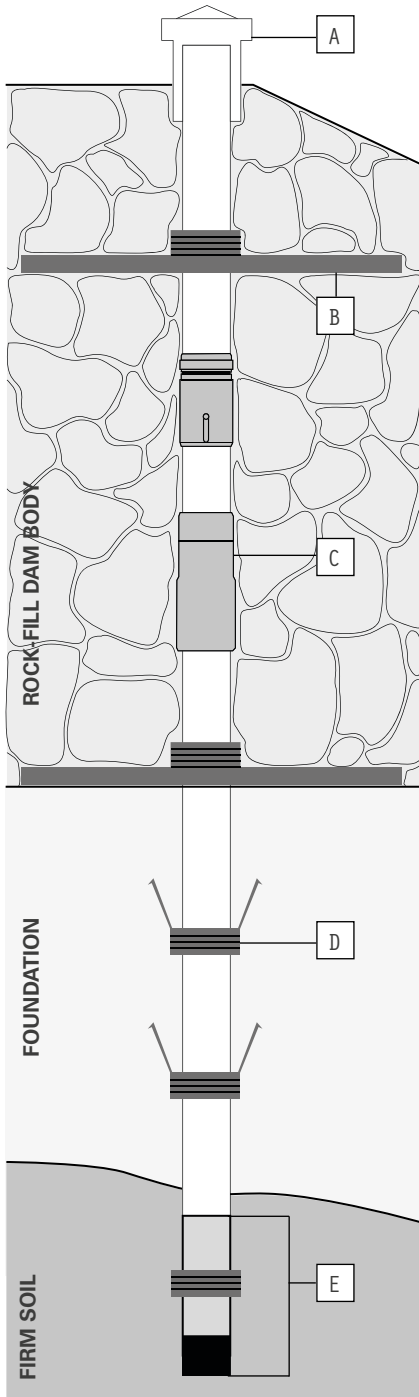
ASSEMBLY SEQUENCE



QJ TELESCOPIC SECTION



QUICK JOINT ACCESSORIES AND INCLINO-SETTLEMENT COLUMN



LOCKABLE TOP CAP OS100CH1000

Lockable protective cap with survey pin permits topographical surveying in order to define and check the borehole coordinates. It also provides temporary fixing for OS1CSU10000 pulley and cable stop during manual inclinometer measurements.

ABS QJ TOP CAP OS151TS7000

Simple top cap to prevent tube clogging with topographic survey point

ABS QJ BOTTOM CAP OS151TF7000

Bottom cap with female quick joint coupling for fast column assembling

SPARE KIT FOR QJ OS151KIT000

This kit includes No.10 "O" rings and No.10 locking rings

REPAIRING KIT FOR QJ OS151KITR00

It includes No.5 female joints, No.5 male joints, No.7 "O" rings and No.7 locking rings

3-SPRING MAGNET RING OS143AF6000⁽¹⁾

BRS magnet ring with 3 nylon springs for borehole installation.
Ring ID 71 mm
Ring OD 95 mm
Max. spring span 300 mm

6-SPRING MAGNET RING OS143AF6060⁽¹⁾

BRS magnet ring with 6 nylon springs for borehole installation.
Ring ID 71 mm
Ring OD 95 mm
Max. spring span 300 mm

EMBANKMENT RING OS143AR6000⁽¹⁾

BRS magnet ring with circular settlement plate for embankment installation.
Ring ID 71 mm
Ring OD 95 mm
Plate OD 300 mm

- A. LOCKABLE TOP CAP
- B. PLATFORM TARGET
- C. QJ TELESCOPIC SECTION
- D. SPRING MAGNETIC RING
- E. QJ DATUM REFERENCE

QJ DATUM REFERENCE OS151DR7000

It provides bottom datum point in borehole for inclino-settlement column.

PLATFORM TARGET OS151AR80RC

Platform magnet target designed for rockfill dams.
Material: stainless steel
Platform area: 900x300 mm
Platform thickness: 30 mm
Hole ID: 83 mm

Inclino-settlement columns with QJ casing are a cost-effective solution when inclinometer and settlement measurement are required. A typical application is in rock-fill dams thank to QJ extreme robustness and availability of magnet platform target. The columns are composed by QJ casings with a number of magnet rings/platforms; telescopic sections are provided for columns where big settlements are expected with consequent damage of the casings. Measurements are performed with removable inclinometer system and portable settlement probe C121 model.

⁽¹⁾ Magnet ring shall be installed on the casing during production.

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ADDITIONAL SUPPORT

SISGEO offers on-line assistance service to the Customers in order to maximize the performance of the system and training on the correct use of the instrument/readout.

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