pizzi instruments

Removable Deformometer 700

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Instruments and Systems for Geotechnical and Structural Monitoring

Removable Deformometer 700

Description

The removable deformometer 700 Pizzi Instruments is a portable mechanical crackmeter with a base of 700mm, used for the control and manual measurement of the variations in distance between two points either side of a crack or a joint. In the standard version it is made of stainless steel, with a 5 mm range and a 0,01 mm resolution (centesimal). It is also available in Invar, with a 5 mm range and resolution 0,001 mm (millesimal).

Special design features make the crackmeter robust and totally protected from humidity and other weather conditions often found in environments subject to monitoring. The instrument is supplied with a control template (stainless steel or Invar), for veri cation and periodic calibration of the instrument, and a shockproof carrying case. An important feature of all our deformometers and crackmeters, as well as many of our other instruments, is the total media compatibility with similar products developed and supplied by O cine Galileo of Florence. For speci c needs and requests, we are able to develop and manufacture customized products of di erent speci cation from standard.

Applications

It is normally used with existing joints between two adjacent blocks or cracks. In the millesimal version, it is also used for the measurement of surface deformation in concrete structures.

The main applications are:

- **Dams**
- **Bridges**
- **Tunnels**
- **Viaducts**
- **Other**

Features and benefits

- **Extremely robust**
- **Easy to use**
- **Interchangeability of fixtures between the Invar and stainless steel versions**
- **Advanced technolog**
- **Indispensible for monitoring and backup measurements to automatic measurements of joints in dams in concrete or galleries in earth dams.**

Measurement principle

The instrument is composed of a comparator, analog or digital, depending on the model and two extension bars in steel, stainless steel or Invar depending on the resolution and accuracy required. One of the bars is made of a tubular element and an internal piston which with its stroke defines the field of the instrument. The piston acts on the head of the comparator dedicated to reading the measurements.

Two spherical heads make up the contact point with the appropriate fixtures which form the measurement base of the instrument.

To ensure accuracy to 0,002 mm (or 0,01 mm), it is essential that instruments must be produced in a highly protected environment with all due precautions and utmost care, these characteristics have always been associated with our products.

Templates are available as accessories (one in Invar and one in stainless steel) for monitoring the “zero” and “gauge factor” of the instrument.

The fixtures that make up the base of application of the instrument , may be “straight” type for the perpendicular application to the joint or “squared” type for parallel application to the joint.

Special fixtures can be made to specific customer requirements. A special template for the installation of fixtures is available.

Technical specifications

Measuring base:	700 mm (optional 300 mm)
Amplification:	500 times
Measuring range:	5 mm
Precision:	• For the model in INVAR 0,002 mm • For the model in INOX 0,01mm
Min. distance between the instrument axis and the structure	25 mm
Housing dimensions:	81 x 18 x 14 mm
Instrument weight :	3,1 Kg
Weight of the instrument with housing :	6,5 Kg
Rod Material:	• INOX (standard) • INVAR (upon request)
Dial Gauge:	• Analogue (standard) • Digital (upon request)

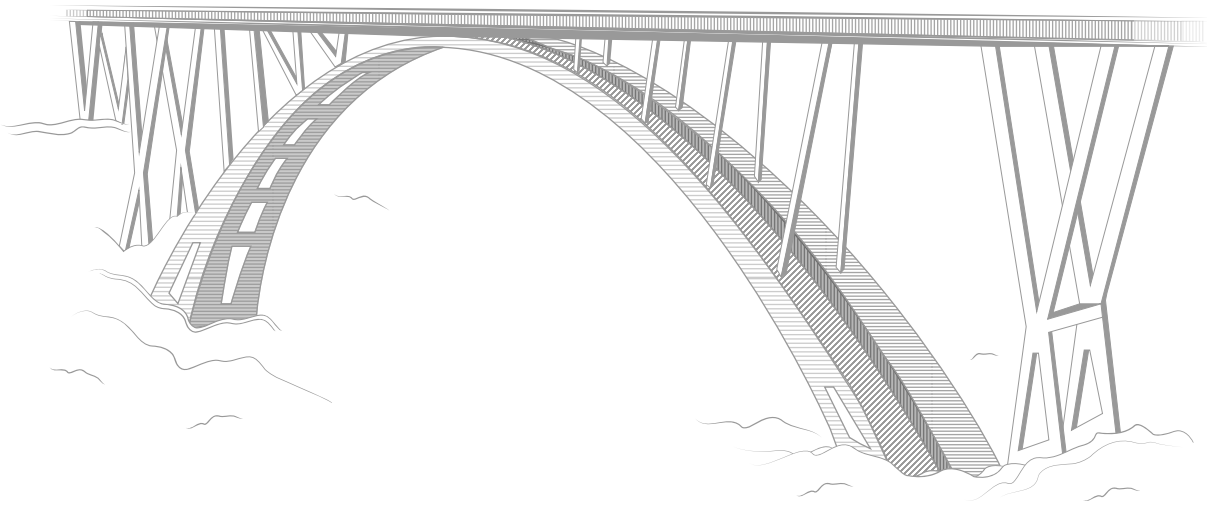
Accessories and related products

Pair of straight fixtures	To measure the opening and closure of the joint
Pair of straight fixtures	To measure the sliding between cut stones
Stainless steel control template	For the instrumental control of the stainless steel calibers
Invar control template	For the instrumental control of the INVAR calibers
Fixture installation template	For the installation of straight and square fixturer
Protection cap for the fixture conical tablets	Spare part of the fixtures
Fixture conical tablets	Spare part of the fixtures
Caliber pivot cups	Spare part of the fixtures

The Company

For over 40 years we have been producing precision and large facility monitoring instruments sold throughout the world.

Accuracy in design, efficiency in construction, reliability in management; these are the prerogatives that every major work must have and that Structural Monitoring Systems must guarantee.



Technical assitance

If you have any requests or questions about our instruments or if you have special needs that require different solutions from the standard, please contact us. Our team will provide all the necessary information and will be very happy to work with you to study, develop and customize instruments and solutions suitable for your specific needs.

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