DRC
Diagnostic Research Company
Non Destructive Testing

MORTAR PENETROMETER RSM

The RSM mechanical mortar penetrometer has been developed thanks to the thirty years' experience gained by DRC in Non Destructive Testing instrument production and through collaboration with leading Test Laboratories. This instrument was designed and realized following the earthquake of 2012 in Emilia-Romagna. This instrument measures the response of mortar to needle penetration and correlates it to the mechanical performance of the material. The RSM series mortal penetrometer provides information regarding the quality and homogeneity of mortar both along its thickness and compared at different points of the structure under examination.
The RSM mortar penetrometer is made with carefully selected and low environmental impact materials.
The entire cycle of production is completely Italian, with the renowned quality of made in Italy products.

OPERATING PRINCIPLE

The non-destructive testing performed through use of the RSM penetrometer has the aim of providing information regarding the resistance of mortar joints to a steel needle driven using strikes generated with constant energy. The result that RSM penetrometers provide therefore regard penetration depth (expressed in millimetres) on the number of strikes defined according to the type of procedure used *(for further information please see the instrument WEBHELP section)*. Correlation curves can be used to obtain an indicative estimate of the mechanical resistance of the mortar in relation to the penetration depth. The correlation curves provided with the instrument have been obtained through tests carried out on site. However, the mechanical characteristics of the tested materials [mortars] are not representative of all the mortars present at the site.

FIELDS OF APPLICATION *

- Measuring the homogeneity of the mortar joint layer from the outside layer to the inside layer in order to check for any degradation, carbonation, and subsequent applications and interventions
- Measuring the homogeneity of different portions of the mortar arranged in different parts of the same structure or adjacent structures
- Estimating the mechanical resistance of mortar (in order to correctly calibrate the method, DRC recommends taking measurements on-site and simultaneously proceeding with extracting a sample of the mortar for destructive testing)

*** For the proper use of the equipment, see www.drcitalia.net - Download Area section WebHelp Area.**

TECHNICAL SPECIFICATIONS

PERFORMANCE

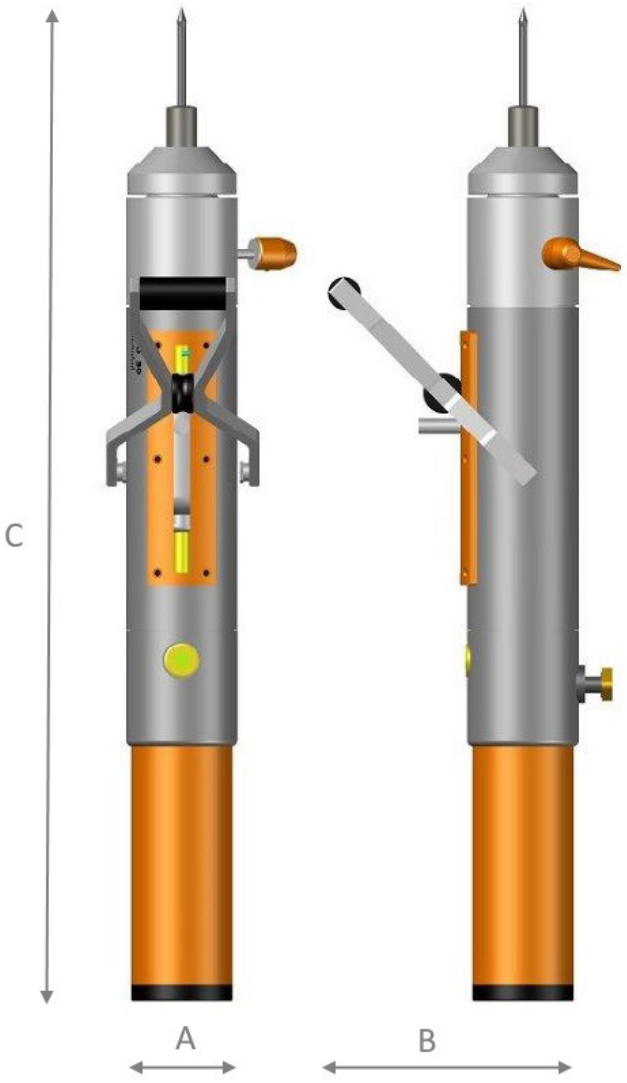
IMPACT ENERGY	4,55 Nm
IMPACT MASS	835 g
STROKE	82 mm

PHISICAL

DIMENSIONS	(A)60 x (B)130 x (C)320 mm
WEIGHT	2,1 Kg

MECHANICAL

EXTERNAL PARG	Aluminium 6060 - 11S
TREATMENT	Anodizing oxidation OX
INTERNAL COMPONENTS	C 40
THEAT TREATMENT	NIT-OX
MOVEMENT ROD	INOX
NEEDLE	Hardened steel



Ordering information
Article code PRF0383DRC

The kit includes:

- Penetrometer striker RSM
- External reading body
- Analogical gauge 0,01
- Measurement needle and extension
- Manual depth gauge
- Measurement reference accessories
- Operating manual
- Calibration report
- Rigid case IP67

PACKAGE

DIMENSIONS	420 x 280 x 180 mm
WEIGHT	5,7 Kg

Warranty & Maintenance

24 months

DRC guarantees maintenance service at its center or at authorized centers

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For ordering information please contact:

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