

## CALIBRATION ANVIL

STANDARDS: EN 12504-2, ASTM D5873, C805

Used for the verification of the calibration of the hammers.

The EN 12504:2 Specification requires obligatory the use of the anvil for the hammer tests.

The Standard specifies; before a sequence of tests on a concrete surface, take and record readings using the steel reference anvil and check to ensure that they are within the range recommended by the manufacturer. If they are not, clean and/or adjust the hammer.

After tests, take readings using the steel anvil, record them and compare them with those taken prior to the test. If the results differ, clean and/or adjust the hammer and repeat the test.

Made of hardened steel according to the standards.



HR-C7000

### Technical Specifications:

Product Code	Product Name	Dimensions (cm)	Weight (kg)
HR-C7000	Calibration Anvil	Ø 15x23	16

## ULTRASONIC PULSE VELOCITY AND PULSE ECHO TESTING OF CONCRETE

STANDARDS: EN 12504-4, ASTM C 597-02, BS 1881 Part 203, ISO 1920-7:2004

Structural defects cause serious damages and collapses. Ultrasonic testing provides information on the strength and uniformity of concrete, rock, composites, ceramics, wood, epoxy, refractory materials and can be used to detect and localize voids, pipes, cracks and defects.

The pulse velocity in a material depends on its density and its elastic properties which in turn are related to the quality and the compressive strength of the concrete. It is therefore possible to obtain information about the properties of components by sonic investigations.

Proceq offers the most versatile instrument for ultrasonic testing of concrete.

### Ultrasonic Pulse Velocity - Pundit Lab

Measurement performance; Optimized pulse shaping, automated transmission settings for optimum performance and a range of new, more powerful transducers ensure accurate, stable measurements.

Integrated waveform display; Allows analysis of the received signal and manual triggering directly on the instrument.

On-line data acquisition; Full remote control of all transmission parameters, data logging function and functionality that turns your PC into an oscilloscope.

USB interface and data analysis software; Data analysis and export to third party programs.

Open interface; Control Pundit Lab using third party software such as LabVIEW. Pundit Lab consisting of: Display unit, 2 transducers (54kHz), 2 BNC cables 1.5 m, couplant, calibration rod, battery charger with USB-cable, 4x AA(LR6) batteries, data carrier with software, documentation and carrying case.

### Ultrasonic Pulse Velocity - Pundit Lab Plus

Integrated gain stage; Removes the need for an external amplifier when using exponential transducers and long cables.



HR-C7050

## HİRA TESTING EQUIPMENT

Compressive strength measurement; Conversion curves for strength estimation can be created in the software and uploaded to the instrument to give instant strength estimations on site.

Combined estimates with rebound hammer; SONREB curves may also be uploaded onto the instrument for improved compressive strength estimates in combination with rebound hammer measurements.

Time stamp; A real time clock has been integrated to provide a time stamp to every measurement recorded.

Review list; Saved measurements may be reviewed directly on site without the need for a PC connection.

Pundit Lab Plus consisting of: Display unit, 2 transducers (54kHz), 2 BNC cables 1.5 m, couplant, calibration rod, battery charger with USB-cable, 4x AA(LR6) batteries, data carrier with software, documentation and carrying case

### Pundit Link Analysis Software

The Windows based software Pundit Link, developed by Proceq SA, unlocks the full capabilities of the Pundit Lab, providing the user with:

- Waveform visualization and analysis turning your PC into an oscilloscope
- Interactive adjustment of trigger point
- On-line data acquisition
- Full remote control of the instrument instrument including programmable data logging functionality
- Export of data to third party applications
- (Pundit Lab+ only) creation of conversion curves for compressive strength (exponential, polynomial).
- (Pundit Lab+ only) creation of SONREB curves for combined (ultrasonic/rebound value) estimates of compressive strength



HR-C7050

### Technical Specifications

Product Code	HR-C7055	HR-C7050
Product Name	Ultrasonic Pulse Velocity and Pulse Echo Testing of Concrete	
	Pundit Lab	Pundit Lab Plus
Transit Time Range	0.1 – 9999 µs	
Resolution	0.1 µs	
Energising Pulse	125 V, 250 V, 350 V, 500V, AUTO	
Tx Frequency Range	24 kHz – 500 kHz	
Transit Time	Yes	
Pulse Velocity	Yes	
Path Length	Yes	
Surface Velocity	Yes	
Crack Depth	Yes	
Memory	> 500 readings	
Power Supply	Mains/Battery(>20h)/USB	
IP Classification	IP42	
Integrated Gain Stage	1x, 10x, 100x	1x, 2x, 5x, 10x, 20x, 50x, 100x, 200x, 500x, 1000x
Compressive Strength	---	Yes
SONREB Method (Ultrasonic plus rebound hammer for compressive strength)	---	Yes
Time Stamp for Measurements	---	Yes
Measurement Review List on Instrument	---	Yes