



Noise Sources

Tapping Machine Nor277

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Nor277 tapping machine for performing standardised impact noise tests (foot fall noise). It incorporates all the experience from the former generations into a compact, light, yet a rugged unit with the construction based on an extruded aluminium chassis. The hammers are made of harden stainless steel, ensuring non deformation of the hammer shape even after years in use. The unit weight is only 10 kg including the optional battery. Retractable feet ensure easy transportation and storage

The unit has the required five hammers each weighting 500g, with a fall height of 40 mm and 100 ms between each hammer impact. A crystal controlled servo system ensures the correct tapping frequency is maintained at all times and temperatures. A level gauge mounted on the top helps the user to align the unit when adjusting the fall height.

Self check

The tapping machine standards specify the impact velocity of the hammer and to ensure this requirement is met the Nor277 continually monitors each hammer.



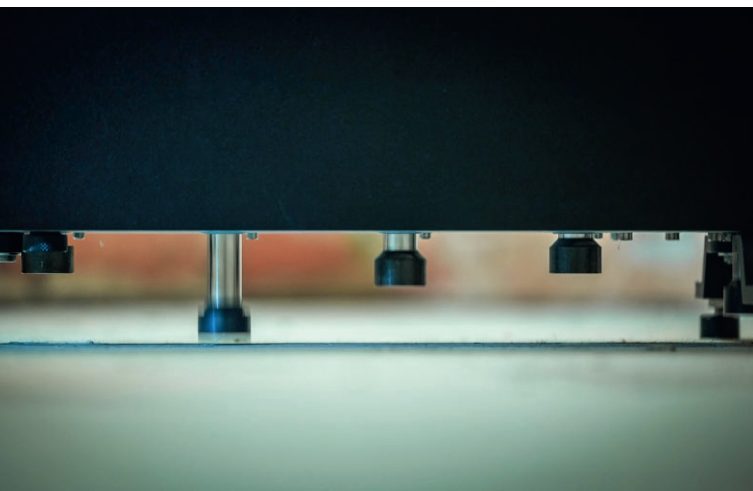
Each hammer is fitted with a laser sensor to measure the impact velocity to ensure that the energy imparted into the test floor is correct hence the effects of any friction or misalignments are immediately apparent. Each hammer has a LED indicator on the front panel that indicates when the impact velocity and tapping frequency are within the requirements of the standard. The user can now be assured that the noise generation system will perform to the requirements of the standards and therefore concentrate on the other aspects of the measurement.

Battery operation

The unit can be equipped with an internal battery. The battery is of the lithium-ion type and is automatically charged while the unit is connected to mains. A three step LED battery monitor tells the user about the state of charge. Charging time is 2 hours.

Wireless Remote control

A wireless remote control allows the user to switch the unit on/off remotely. The radio range is 100m in free field, which correlates to failure free operation through most thick concrete constructions. The unit may also be controlled via the RS232 interface and this allows wireless control via standard RS232 to Bluetooth adaptors. The RS232 interface is a part of the basic unit.



Key Features

Conforms to following standards:
ISO 10140-5:2021, ISO 16283-2:2020,
ASTM E492-22 and ASTM E1007-21.

**Remote operation from hand switch
or PC.**

Mains or battery operation.

**Built in self check of hammer fall speed,
and tapping sequence.**

Retractable feet.

**Low weight, compact and rugged
construction.**


**All units delivered with calibration
certificates.**




Technical Specifications

Hammers	Five in line, (100 ±1) mm between each hammer Single hammer weight: (500 ± 4) g Diameter: 30 ± 0.2 mm Face curvature: 500 ± 10 mm Effective fall height: 40 mm (adjustable ±5 mm). Extra drop below impact plane (40 mm) is at least 4 mm. A gauge for exact height adjustment is attached to the machine.
Tapping frequency	Each hammer 2 times per second, Sequence: 1-3-5-2-4 Mean Time between impacts: 100 ± 5 ms Successive time between impacts: 100 ± 20 ms
Power	85 – 264 VAC, 47 – 63 Hz, Fuse: 2A, Power consumption: Max 30 Ws.
Battery operation (Option 1)	Operation from built-in Lithium-Ion rechargeable battery. Battery capacity: Typical 1 hr 15 min. Battery charging time: 3 hours (Machine in Off). The battery is automatically charged when the unit is connected to the mains input.
Digital interface	RS232, 9600 baud. For computer control. This allows wireless control via standard RS232 to Bluetooth adaptors
Connector	9-pin Sub D
Supplied power	5 volt on pin 9 for supply of external modules, max 50 mA.
Dimensions WxHxD	Feet retracted: 165x230x495 mm (6,5x9,1x19,5") Feet extended: 265x230x495 mm (10,4x9,1x19,5") +50 mm (H) including handle (2")
Weight	10 kg (22 lb) including battery and wireless remote option.
Accessories	Carrying/Flight case Nor1336



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