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Mechanical stress (shaker) equipment

Description



The mechanical stress equipment comprises essentially three main parts:

A basket and lifting mechanism mounted on a substantial base plate;

A noise reducing enclosure;

A control box with a trailing plug to connect to the noise reducing enclosure.

The basket includes a set of nylon combs, the spacing of which can be changed to alter the separation of different sized specimens.

A pre-determining counter switches off the equipment after the required number of cycles.

The base plate is drilled and tapped at the four corners, to facilitate lifting into place and bolting to the floor. This is required in order that the equipment complies with the requirements of the relevant PPE product standards.

The equipment is housed within an interlocked enclosure to prevent access to moving parts and to provide sound abatement.

Technical specification

	Min	Nominal	Max
Supply voltage		220	
Supply Frequency (Hz)		50/60	
Cycle rate (per minute)	22	100 (factory set)	120
Drop height (mm)		19-20	
Maximum specimen size		475 x 475 x 200mm	
Minimum specimen spacing		6mm	
Number of cycles available	10	Typically, standards specify one of 500, 2000, 10000, 50000	500000

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Mechanical stress (shaker) equipment (continued)

Dimensions

Item	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
Basket and lifting mechanism	660	660	510	142
Enclosure (closed)	800	800	600	51
Control box	300	220	300	12

In addition to the supplied shaker, you will also require:

Suitable anchorage bolts for the lifting mechanism (4).
Suitable anchorage for the control box.

Operating conditions: 10°C to 40°C and <85%RH
Storage conditions: -10°C to 40°C and <85%RH.

Relevant standards

The shaker is called up in the following standards, or the standards called up by them:

ANSI 110:2009
AS/NZS 1716:2012, Appendix H4
BS 8468-2:2020, clauses 5.7, 5.9.7, 5.11
BS 8468-4:2020, clause 5.7
EN 143:2021, clauses 6.10.2, 7.4.2
EN 149:2001, clause 8.3.3
EN 403:2004, clause 7.4.2
EN 404:2005, clause 7.4.2
EN 405:2001, clause 7.4.2
EN 1146:2005, clause 7.4.1
EN 1827:1999, clause 8.2.3
EN 12083:1998, clause 7.3
EN 12941:2023, clause 6.10
EN 12942:2023, clause 6.11
EN 13794:2002, clause 7.6.2
EN 14387:2021, clause 6.4.2
EN 14529:2005, clause 7.5