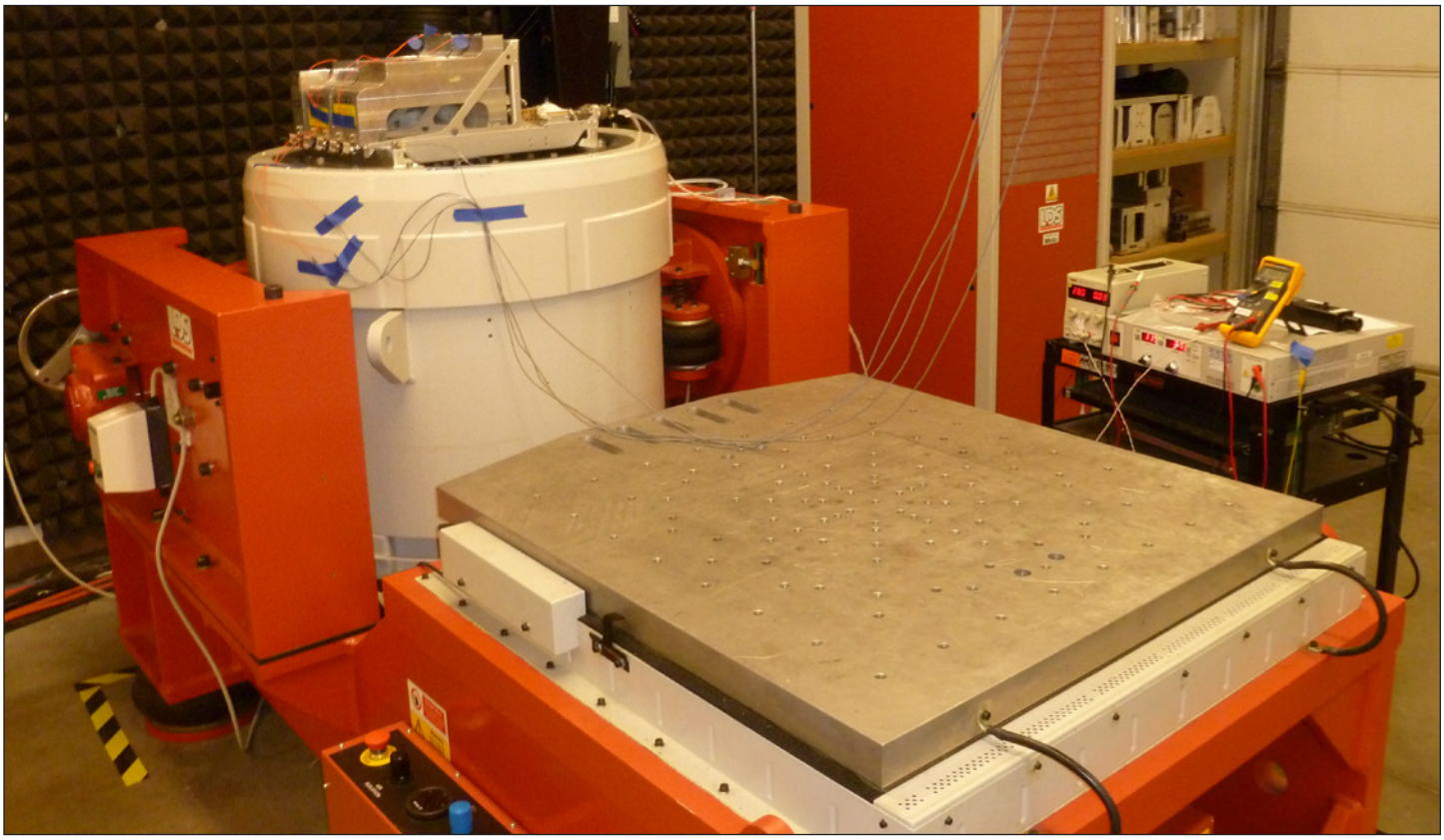
Vibration & Shock Testing Shaker Table

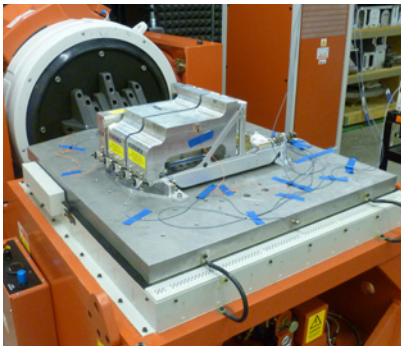


INTRODUCTION

Amphenol CIT offers vibration and mechanical shock testing to provide insight into how a product will behave when in service. The type of test and intensity depends on the application and location of the product.

Vibration curves vary in type and intensity with the goal of simulating the vibration environment a product will encounter. These curves can simulate environments found in helicopters, turboprop planes, and more.

Mechanical shock tests vary in intensity, usually measured in g's, and can simulate a typical operational environment or worse case scenarios where the failure mode of a product is coupled with customer safety.



AVAILABLE TESTS	
• Sinusoidal vibration tests • Random vibration tests • Sine-on-random vibration tests • Random-on-random vibration tests	Evaluate the behavior of a product in a vibration environment. Conformance to product/specification requirements.
• Resonant frequency determination	Determine the resonant frequencies of a product.
• Mechanical shock testing	Evaluate the behavior of a product when subjected to sudden deceleration.

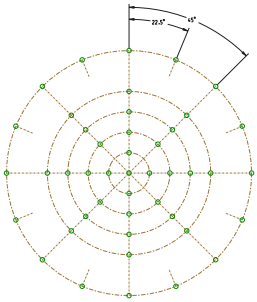
Vibration & Shock Testing Shaker Table

MOUNTING PATTERNS FOR EQUIPMENT

All products tested must be mounted to the shaker. This is typically done using a fixture as an interface between the shaker and the product being tested. The shaker tests a product one axis at a time. Two of the mounting patterns below are for when the equipment is testing the vertical direction, the z-axis. The other is for when the equipment is testing in the horizonal direction, which covers the x- and y-axis. Typically, the product is tested in all three axes using one fixture design for one of the vertical mounting patterns and the horizontal mounting pattern.

Vertical Mounting Pattern A
25.2” Diameter Head

Option one is for mounting equipment when testing in the z-direction. Product being tested must fit inside the 25.2” head of the shaker.

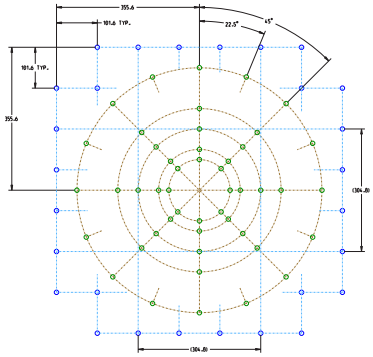


CIRCULAR PATTERN - GREEN
(NOT IDENTICAL TO OTHER CIRCULAR PATTERNS)

45 HOLES ALL WITH 3/8 UNC INSERTS
16 HOLES EQUI-SPACED ON 609.9 mm P.C.D.
8 HOLES EQUI-SPACED ON 406.4 mm P.C.D.
8 HOLES EQUI-SPACED ON 304.8 mm P.C.D.
8 HOLES EQUI-SPACED ON 203.2 mm P.C.D.
4 HOLES EQUI-SPACED ON 101.6 mm P.C.D.
1 HOLE AT CENTER

Vertical Mounting Pattern B
36” Diameter Head Expander

Option two is for mounting equipment when testing in the z-direction. The product being tested should fit inside the 36” head of the shaker; some exceptions are allowed.



GRID PATTERN - BLUE
(NOT IDENTICAL TO OTHER GRID PATTERNS)

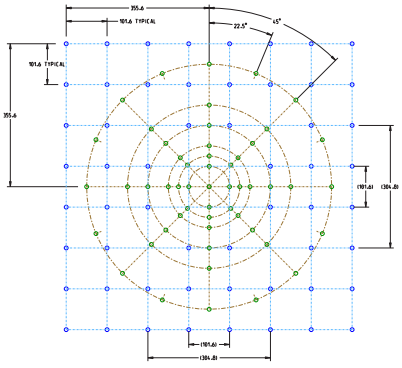
28 HOLES ALL WITH 3/8 UNC INSERTS

CIRCULAR PATTERN - GREEN
(NOT IDENTICAL TO OTHER CIRCULAR PATTERNS)

48 HOLES ALL WITH 3/8 UNC INSERTS
16 HOLES EQUI-SPACED ON 609.9 mm P.C.D.
8 HOLES EQUI-SPACED ON 406.4 mm P.C.D.
8 HOLES EQUI-SPACED ON 304.8 mm P.C.D.
8 HOLES EQUI-SPACED ON 203.2 mm P.C.D.

Horizontal Mounting Pattern
36” x 36” Square Table

This option is for mounting equipment when testing in the x- and y-direction. Each axis is tested one at a time. After one axis is completed, the equipment is rotated 90° and tested again. Product being tested should not hang off the edge of the table; some exceptions are allowed.



GRID PATTERN - BLUE
(NOT IDENTICAL TO OTHER GRID PATTERNS)

56 HOLES ALL WITH 3/8 UNC INSERTS

CIRCULAR PATTERN - GREEN
(NOT IDENTICAL TO OTHER CIRCULAR PATTERNS)

53 HOLES ALL WITH 3/8 UNC INSERTS
16 HOLES EQUI-SPACED ON 609.9 mm P.C.D.
8 HOLES EQUI-SPACED ON 406.4 mm P.C.D.
8 HOLES EQUI-SPACED ON 304.8 mm P.C.D.
8 HOLES EQUI-SPACED ON 203.2 mm P.C.D.
8 HOLES EQUI-SPACED ON 152.4 mm P.C.D.
4 HOLES EQUI-SPACED ON 101.6 mm P.C.D.
1 HOLE AT CENTER