- Vibration Frequency: 1,780 c.p.m.
- Vibration Stroke: 11mm
- Impact Stroke: 19mm
- Structure Acceleration : 19.5G

We conducted our own original sever vibration impact tests based on the US NAS3350/3354 standard screw looseness test, and verified that all types of Hard Lock nuts exceed this evaluation standard by a clear margin. As self-locking nuts used in civil engineering applications such as railways, highways, bridges, pylons, etc., Hard Lock nuts are exposed to a wide range of vibrations and impacts on a continuing basis. However, the data from these tests proves that Hard Lock nuts maintain a stable tightened condition regardless of the type of impact to which they are exposed. A performance comparison with other general-purpose nuts demonstrates the clear superiority of Hard Lock nuts for tasks where vibration resistance is paramount.