



VERTICAL PITCH & ROLL SYSTEM

Description

CSA Group's Vertical Pitch and Roll (VPR) facility allows users to conduct BSR (Buzz, Squeak and Rattle) assessments on a range of components like seats and IP's (Instrument Panels). This is used in conjunction with OEM and / or international standards ensuring consistency and repeatability. Alternatively; customers can use CSA Group's experience to derive bespoke tests for R&D or one-off test purposes. CSA Group's VPR facility and experience supports customers in signing off sub assembly systems at DV or PV levels, helping to reduce future recall and warranty claims.

The VPR facility offers a high capacity frame that can achieve realistic conditions through simultaneous excitation. Its vibration control system is enabled to replicate recorded time history data, road load data (RLD) and artificial test signals within a quiet room (20Db level). In addition to this, the system includes: Recorder, Analyser & Waveform editor for drive signal generation, BSR suite, real-time data acquisition, squeak (creak) & rattle analysis and offline signal processing.

Typical Applications

- BSR (Buzz, Squeak and Rattle)
- Assessment on cockpits, consoles and other modules
- Vibration durability testing via continuous running
- Testing to OEM & international standards
- Subjective and objective assessments using BSR sound quality
- Sine (Max): 3600N peak (continuous-duty)
- Random (Max): 2160N RMS
- Time History/ Shock (instantaneous, max): 7200N peak
- Road Load Data (RLD)

Specification

- 5 axis simultaneous excitation
- Force in Fore-Aft is typically about 45% of vertical excitation
- Uncooled operation up to 50% of maximum force
- Max. displacement: 44mm peak-peak
- Max. velocity: 1.5m/s
- Max. payload: 225kg
- Active air spring load support for static test loads of up to 225kg
- Combination of Roll- and Pitch-mode available in a single test
- 1.5m x 0.6m mounting table
- M10 threaded inserts on 150mm * 150mm grid pattern
- Fully prepared for environmental testing
- MB BSR Suite
- Class 1 Measuring Microphone