

Vibration

• Balance

Vibration appearing at high speed are caused by resonance between wheel and car's natural frequency so speed range of vibration could be different from each car.

- No tires worn more than 1/32 of the original usable tread will be accepted as an "out of round" tire. Because, vibration can occur by vehicle's mechanical deficiency like mis-alignment, error of suspension system and so on. If the vibration occurred at initial time of installation, check the matching condition of wheel and tire.
- Generally, vibrations appearing during high speed driving is caused by tire dynamic balance and / or out of round of wheel, so before mounting a tire on a wheel, tire and wheel uniformity test should be given.
- Fundamentally, in the event of assembling wheel and tire, the standard for assembling should be considered (Option for lightening wheel weight to minimize the balancing lead or improving ride performance)
- For lightening balance weight, take the wheel balancing by balance machine and find the heaviest point on the wheel. Then, assemble tire with matching heaviest point of wheel and lowest point of tire (yellow dot marking)
- ※ Off-car-balance machine is not available for self-calibrating because its revolution or drum could be bent or run-out. So, in this case, need to use On-car-balance.
- If there is some vibration after assembling and attaching the balancing lead, check the axis, hub or tire/wheel run-out.
- ※ Most of measured values are changeable because of mechanical error or tolerance so often take a calibration of equipment.
- For improving ride performance, assemble tire with matching lowest point of wheel run-out and high point of tire (red dot marking) as shown right picture.
- ※ Because run-out or balance marking of wheel is different from wheel company, you need to identify correctly. Also, if there is no marking on it, applicable to use balance machine and matching with lowest balancing or opposite position of valve placed.
- Nexen tire recommend to match with high point of tire and lowest point of wheel. (helpful to reduce RFV value)

