SPANK
INDUSTRIES

Radially Compliant Rims – Wheel Building Requirements

Radially Compliant Rim Designs, such as Spank Industries' Spank 350, Spank 350 Vibrocore, Spank 359, and Spank 359 Vibrocore rim models, must be built to A-Level specifications, and only by a qualified wheel builder/technician.

External Nipple Washers should be used on all Spank 350 and Spank 359 rim wheel builds. Spank highly recommends the use of nipple washers to improve spoke tension longevity in Radially Compliant wheels.

Spank 350 Vibrocore and 359 Vibrocore rims produced May 2019 or later, include embedded nipple washers. Spank 350 Vibrocore and 359 Vibrocore rims produced before May 2019, do not include embedded nipple washers. If nipple washers are used, it is important to first ensure the nipple access holes are completely free of Vibrocore, and no Vibrocore or residue exists between rim and nipple washer.

Spokes used in Radially Compliant Wheel builds, must be high quality, with high fatigue life, and break point over 300 kg. Single Butted/Plain Gauge spokes are not sufficient for radial compliant wheels. Spank recommends Triple Butted Spokes, of 2.2/1.8/2.0 mm thickness.

Nipples used in Radially Compliant Wheel builds, must be flat head, external type nipples. Internal Nipples, or DSN/ Square Drive nipples are not suitable.

3 Cross Lacing must be used on all Radially Compliant rim wheel builds.

350 Vibrocore™ and 359 Vibrocore™ rims, should be checked carefully to ensure no Vibrocore or residue exists between nipple head and rim. If any traces if Vibrocore or residue are present, they should be scraped away before nipples are inserted into the rim for building.

Spoke Tension on the drive-side spokes of Radially Compliant rim wheel builds, is recommended at 110-120 kgf.

Spoke tension throughout drive side spokes should not vary more than 5% maximum.

Spoke tension throughout non-drive side spokes should not vary more than 5% maximum.

Nipple Lubricant must be used between nipple head and rim interface. Lubricant must not be used on thread of spoke or nipple.

Light to Medium Thread Lock, which allows for tension adjustments without compromising function, (example: LOCTITE® THREADLOCKER BLUE 242®), must be applied on thread of spoke or nipple, before tensioning. A suitable environmentally conscious alternative to industrial thread lock agents, is boiled linseed oil.

Roundness Tolerance requirement for Radially Compliant rim wheel builds is 0.4mm deviation maximum.

Flatness Tolerance requirement for Radially Compliant rim wheel builds is 0.3mm deviation maximum.

Dish Tolerance requirement for Radially Compliant rim wheel builds is 0.4mm deviation maximum.

Maintenance Requirements – Radially Compliant Wheels should be checked for spoke tension stability/loosening, after your first few rides, and regularly for the life of the wheelset (depending on frequency and severity of use).

THE GRAVITY CARTEL