Kalloy Industrial's AS007N 3D-Forged Stem Achieves Dual ISO 4210 R/M Certification for Road and Mountain Applications

Taiwan-based cockpit component manufacturer's flagship stem clears both road and mountain safety standards



AS007N

TAIPEI, TAIWAN, September 23, 2026 /EINPresswire.com/ -- Kalloy Industrial Co., Ltd, a Taiwan-based manufacturer of bicycle cockpit components since 1980, announced today that its AS007N rigid stem has achieved dual ISO 4210 R/M certification — meeting the international safety standards for both road (R) and mountain (M) bicycle applications within a single product. ISO 4210 is the internationally recognized standard governing fatigue, impact, and static load requirements for bicycle components. While many stems on the market are certified for only one riding discipline, dual R/M certification means the AS007N has been independently tested to withstand the higher impact loads associated with off-road riding while also meeting the stricter fatigue-cycle requirements specific to road use.

"Most manufacturers choose to certify a stem for either road or mountain use, because meeting both standards in one design is a genuine engineering challenge," said Mavis, Vice President Chen, at Kalloy Industrial. "Achieving dual R/M certification on the AS007N reflects the strength of our 3D forging process, and gives assemblers and riders who mix disciplines one less variable to worry about."

Engineering Behind the Certification

The AS007N is manufactured using a 3D forging process, in which aluminum alloy is compressed and shaped simultaneously across three axes inside a precision die. Unlike CNC-machined components — where material is cut from a solid billet, leaving the internal grain structure running in a fixed direction — 3D forging aligns the aluminum's grain flow with the contours of

the finished part. The result is a component with fewer internal voids, higher fatigue resistance, and a more consistent stiffness-to-weight ratio across every unit produced.

That structural advantage is central to how the AS007N was able to clear both certification categories: road certification emphasizes sustained fatigue-cycle performance, while mountain certification emphasizes resistance to sudden impact loads. A forged grain structure performs well against both criteria, whereas cast or machined alternatives typically must be over-built in one direction to compensate for a weakness in the other.

Product Details
Construction: 3D forged aluminum alloy
Certification: ISO 4210 – Road/Mountain (R/M) approved
Manufacturing: Taiwan / China dual-source production
Type: Rigid stem, fixed angle
Applications: Road, mountain, city, and e-bike builds

Bicycle assemblers and OEM buyers evaluating stem options can review a full breakdown of forging technology, sizing, and fit criteria in Kalloy's buyer's guide, How to Choose the Perfect 3D Forged Bike Stem, or view full AS007N specifications directly on the Kalloyuno product page.

About Kalloy Industrial Co., Ltd
Founded in 1980 in Taichung, Taiwan, Kalloy Industrial Co., Ltd has spent over four decades providing fully integrated research, development, manufacturing, and sales services in the bicycle component industry. Its core product lines — handlebars, stems, seatposts, and seat clamps — serve city, trekking, road, mountain, and e-bike applications worldwide. In 1999, Kalloy launched its international UNO brand under an ODM/OBM business model, supplying high-quality cockpit components to bicycle assemblers globally. With manufacturing facilities in Taiwan, China, and Vietnam, and a team of nearly 400 employees, the Kalloy Group is guided by an ESG-driven management philosophy and remains committed to product innovation, quality, and on-time delivery for its customers around the world. All products are manufactured to international safety standards, including ISO 4210 and EN 17404.

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