



“Our four Guinness World Records underscored a fundamental truth: highways are only as reliable as the materials that form their core, and those materials are only as reliable as the systems that process them.”

**R. S Boyal, General Manager - Plant & Machinery, Rajpath Infracon**

**Crushing and screening plants are the foundational force that determines quality, speed, and reliability in modern highway construction.**

From the vantage point of achieving four Guinness World Records, accomplished by Rajpath Infracon in January 2026 on the 6-lane access-controlled greenfield NH 544G expressway in Andhra Pradesh, the role of crushing and screening plants emerges not as a peripheral function, but as a foundational force shaping the future of quality, speed, and reliability in highway and infrastructure development.

These plants are the unseen engines that translate design intent into durable reality, governing gradation accuracy, material consistency, and uninterrupted supply that modern high-performance projects demand, especially where timelines are compressed. The ability to deliver uniform aggregates at scale, adapt swiftly to geological variability, and maintain zero-compromise quality under relentless pace distinguishes routine construction from benchmark-setting infrastructure.

In an era where infrastructure must be faster to build, longer to last, and resilient to escalating loads and climatic conditions, advanced crushing and screening plants stand at the intersection of engineering precision and execution excellence.

**The future of highway construction lies in adopting stationary, mobile, semi- and fully automated, and sustainable technologies.**

Aggregate production and precise sizing ensure strength, durability, and uniform load transfer in pavements, directly influencing compaction quality, structural performance, service life, and long-term reliability of highways and infrastructure assets.

Using stationary and mobile crushers together further strengthens cost efficiency. Stationary plants deliver consistent high-volume output, while mobile crushers optimise on-site processing, reduce material haulage, lower fuel consumption and handling losses, accelerate schedules, and maximise overall project efficiency. This combination was used to optimise output during construction of our Guinness World Record road stretch.

Screening plants are essential facilities in highway construction and infrastructure projects, designed to separate materials by size and ensure high-quality outcomes for highway layers. By automating material sorting, advanced screening plants with adjustable screens deliver accurately graded, contamination-free aggregates that improve mix uniformity, compaction efficiency, and structural integrity. By eliminating oversized particles and excess fines, they help reduce pavement defects, enhance load-bearing performance, extend service life, and ensure the consistent quality required for building high-performance, durable roads, while also offering significant cost-saving benefits.

**Strong OEM support ensures equipment uptime and execution certainty.**

Support from Original Equipment Manufacturers (OEMs) of crushing and screening plants is critical in road construction, where project success depends on uptime, performance consistency, and rapid problem resolution. OEMs provide technology know-how, application-specific plant configuration, timely spares, and on-site technical support to ensure plants operate at peak efficiency under demanding schedules.

During high-speed or record-setting projects, OEM-backed predictive maintenance, process optimisation, and quick troubleshooting reduce breakdown risks, quality deviations, and cost overruns. OEM after-sales support ensures plant uptime, consistent aggregate quality, faster issue resolution, skilled operation, and optimised performance through timely spares, technical expertise, maintenance programmes, and continuous process improvement. It was this seamless support that we engaged to deliver our targets when production schedules were finalised during the Guinness World Record attempt planning.