

## Trail King Industries Case Study

Since 1962, Bull Moose Tube Company has earned a solid reputation as an innovator in the industry – seeking constant improvement of its products to drive the highest level of efficiency and the best results for its customers. The company’s Stratusteel® line of 100 KSI high-strength tube steel is a prime example of its ingenuity and drive to provide the products that allow their customers, in turn, to drive innovation in their own industries. Stratusteel’s direct-form rolled<sup>1</sup>, 100 KSI tube steel offers a higher strength-to-weight ratio, which opens up many possibilities for new designs and applications, as well as the opportunity to reduce the weight of conventional designs and applications.

BMT customers in several industries already have discovered the benefits of high-strength tube steel and have incorporated Stratusteel into products and components, often innovating and expanding their industries along the way.

Founded in 1974, Mitchell, SD-based Trail King Industries, manufactures a variety of commercial, construction and agricultural trailers.

In 2003, Trail King developed its Ultra Lite™ Series Bottom Dump construction trailer, incorporating 100 KSI tube steel in the construction of the truss. The goal of the Ultra Lite series was to reduce overall weight for better performance – particularly for off-road applications. By utilizing 100 KSI tube steel, Trail King was able to reduce the weight of its Ultra Lite™ Series Bottom Dump by 20 percent.

The lightweight trailer opened up new markets to Trail King, and the company has been using high-strength tube steel extensively in other products, including its Advantage™ Live Bottom construction trailers.

“We always seek ways to remain highly competitive in the trailer manufacture industry, and we were pleased with the results we were able to achieve by using 100 KSI tube steel in our Ultra Lite™ Series Bottom Dump trailers,” said John Rust, vice president of engineering for Trail King. “Our lighter trailers allowed our customers to achieve better performance for off-road/on-highway usage, and the durability is in keeping with our standard models.”

- 1. Direct Form is a method of manufacture where a square or rectangular tube of steel is directly formed from a strip of steel, then welded. Conventional methods include forming a strip of steel into a round, welding it, and then cold-working the tube shape into a square or rectangular profile. While conventional methods rely on cold-working to meet minimum strength requirements, Bull Moose Tube Company starts with 100 KSI high-strength steel that already meets ASTM 500 requirements, ensuring product quality and high tolerances on twist, straightness, concavity and convexity.**