

What is 36TECH™?

36TECH™ is a new handlebar standard developed by Renthal to push the boundaries of handlebar technology. It uses a 36mm clamping diameter which tapers down to conventional 22mm control section at each end.

Why was 36TECH™ developed?

The primary goal of the project was to reduce weight. We knew from feedback given by our factory race teams that Renthal handlebars were strong enough and often stronger than the clamps they are used with. Therefore we were looking for a method to maintain existing strength but improve performance by weight reduction, a goal of all of our race teams. The R-Works Fatbar36 handlebar is 36% lighter than the conventional 28mm diameter Fatbar, which was previously the lightest on the market.

How does 36TECH™ work?

It uses the engineering principles of second moment of area. The larger 36 mm diameter tube allows you to achieve the same second moment of area as the smaller 28mm diameter tube, while using thinner wall sections and so less material. So the same strength with reduced weight. The R-Works Fatbar36 has a 47% better strength to weight ratio than the current 28mm Fatbar.

How did you arrive at 36mm?

Data Acquisition and Finite Element Analysis (FEA) work allowed us to model the handlebar in race use and through manufacturing, which allowed us to find the ultimate combination for wall thickness profile, strength, ride feel and manufacturing feasibility. Without Renthal's 47 years of experience in handlebar design and these advances in technology it would not have been possible for us to push the boundaries of handlebar technology.

Are there any other advantages to 36TECH™?

Yes, the larger diameter improves torsional security by 59%. That means for the same torque on the handlebar mounts, it is 59% harder to move the handlebars in the clamps.

Are there any disadvantages to 36Tech?

The 36Tech tube is more difficult to produce and bend due to its thin walls, this results in increased processes which increases the cost.

