



directDimension is a *free public* labeling convention, which simplifies and consolidates the measurement of inflated rim & tire assemblies. The goal of the directDimension project is two fold: (1) to develop and promote a new measurement system; (2) to distribute and support the industry adoption of a new labeling system which allows the standard to be easily communicated and utilized.

1. CURRENT SITUATION

The modern adoption of EU standards for tire sizing has been critical to defining a specific language for bicycle tire and rim interface. This measurement system (defined by bead seat diameter) has been very successful, allowing much of the world market to standardize production utilizing a uniform series of sizes. However this move towards standardization is presently incomplete. Effective as it has been, it does not *fully* address the need to accurately and uniformly measure tire and rim assemblies.

A commonly recognized outcome of this lack of specificity is the inconsistent sectional widths than can *possibly* be achieved by the mounting of a single tire on several rims of differing widths. Thus the current labeling of a tire as, for example 2.1, is only accurate to approximately +/-10mm depending on its assembly by the end user. Clearly a +/-10mm tolerance is far from practical, especially for high performance applications.

direct Dimension is hereby introduced to address the critical issue of standardizing measurements of ***tire section width***. The sectional width of a bicycle tire, being a toroidal form, is defined not only by the casing width of the tire, but by the sum of the casing width and distance between two prong walls of the rim.

2. directDimension (dD) METHOD

The theory behind dD is simple as it is effective. Using a gauging tool developed specifically for directDimension measurements, the accurate contribution of any tire and rim to the total section width is easily determined. A single gauge tool measures the dD value (a composite figure which calculates circumference, bead diameter, casing thickness, et al.) of both the rims

and tires. The dD value of a rim, its total contribution to the tire's inflated width is added to the dD value of the tire mounted on said rim. This final value is the accurate width of the tire, +/- 1mm.

The following illustrations demonstrate the gauge in use.

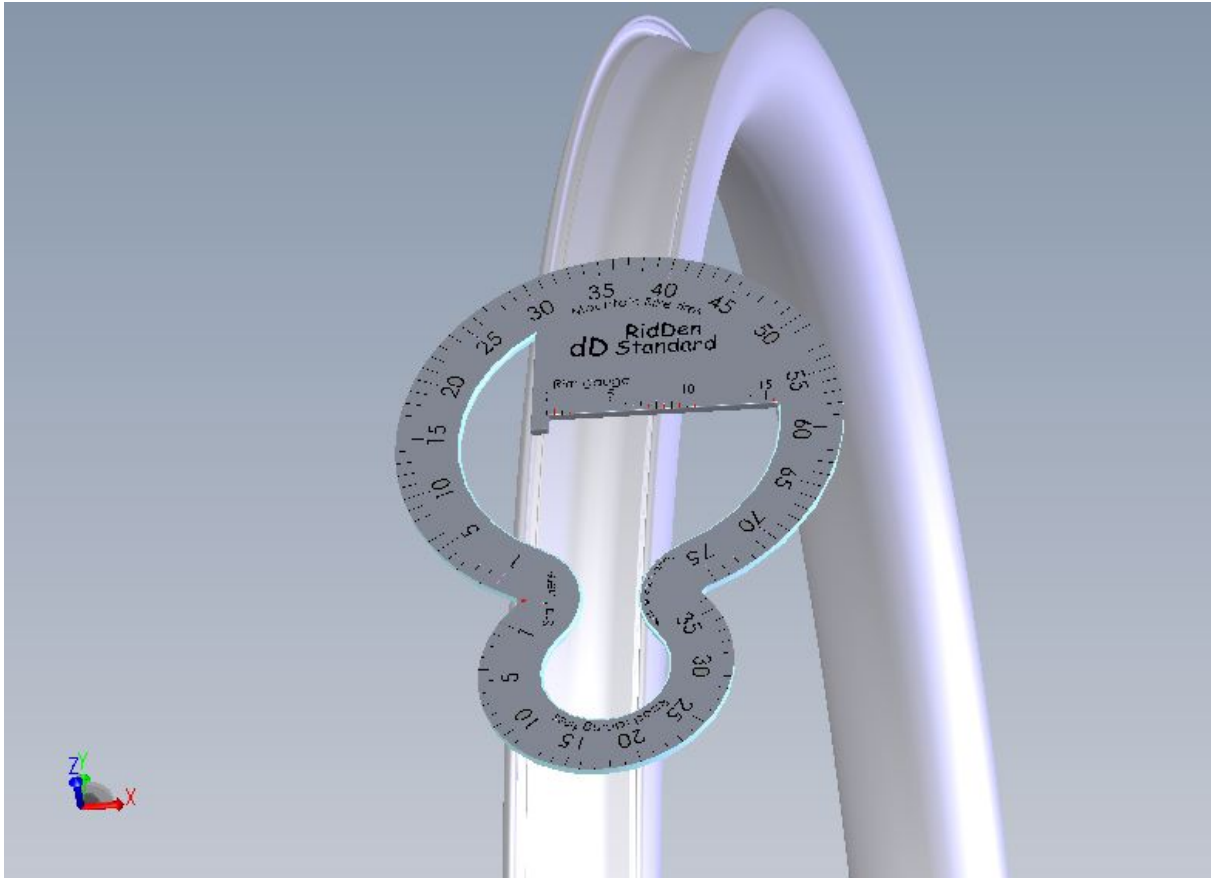


Fig. 1 - The directDimension gauge is pressed flush against the inside of the rim, and the measurement is taken from the opposing inside point. The measurement here is dD7. It is critical to measure from the interior edge of the bead hooks.

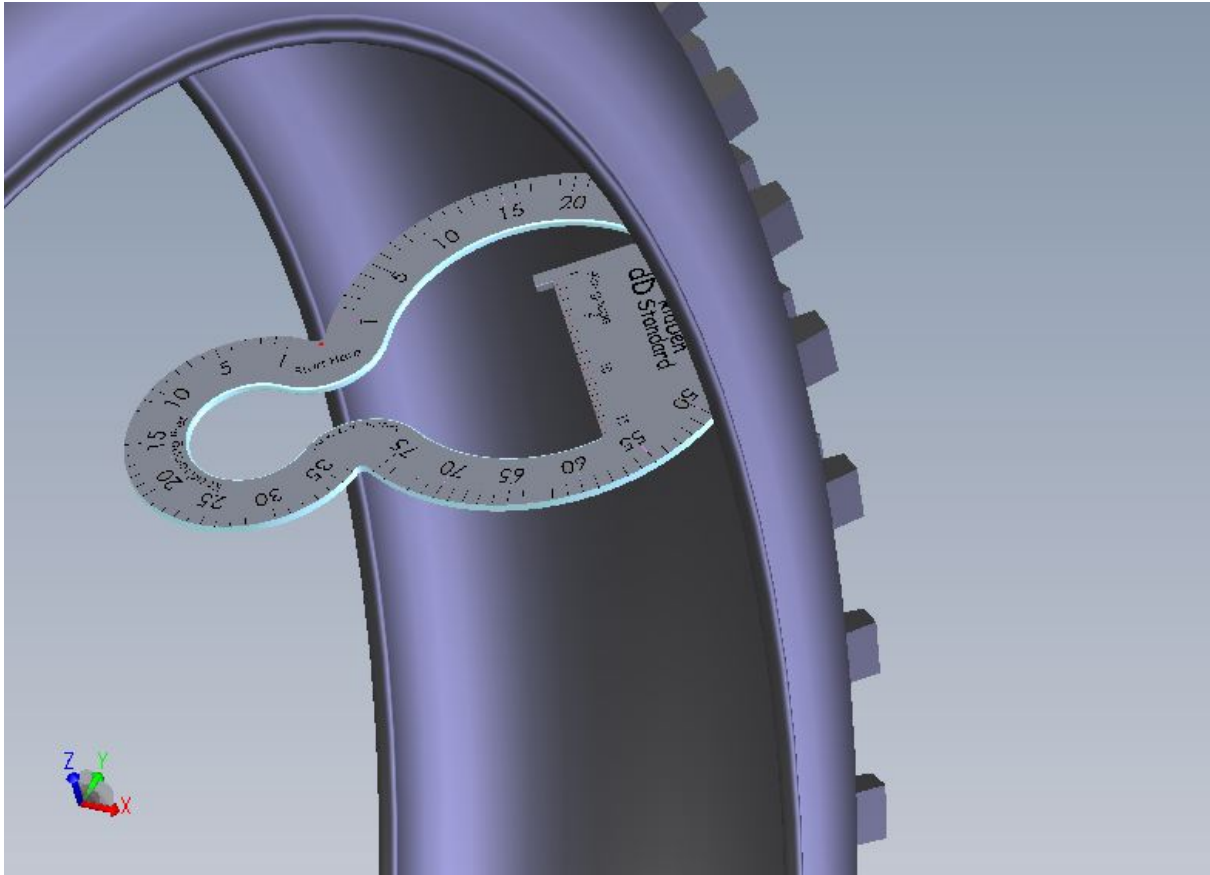


Fig. 2 - The directDimension gauge, with tire fitted tightly against the measuring edge, shows a tire dimensional value of dD50.

Summed, the final inflated section width of this particular tire/rim assembly is now known to be 57mm +/- 1mm.

3. IMPLEMENTATION

Ultimately there are two primary considerations in the implementation of the new dD labeling convention. The first is cost. directDimension is free and public, not a product or a brand, the primary goal of the dD working group is to assist in the resolution of an industry wide problem. Thus it is essential that companies interested in participating be given free and open licence to use dD on all relevant products in all markets.

The second consideration is application of the labeling to products themselves. It is fully up to the discretion of the participating company whether to apply the new dD labels to existing products, or to begin labeling new products as they are developed and introduced.

However, to ensure the proper utility of the new standard and labeling, Ridden formally requests that all participants conform to and exclusively utilize the dD logo and accompanying labeling art **as provided**. Obviously this is necessary for the uniform recognition and usefulness of the labeling convention.

4. FURTHER INFORMATION

Additional research, forthcoming tools, and other data, information, and resources will be made available on the directdimension.org website in the coming weeks. Additionally any questions can be directed to Ridder's directDimension working group, via info@directdimension.com