

# Western Instruments

Established 1965

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## *Tire Tread Gauges for Corrosion?*

Tire Tread Depth Gauges, in their numerous forms, are not designed or intended to be used for corrosion depth measurement (Pits). Similarly, a Machinist's Depth Gauge is not designed for measuring Pit Depth either. Using either of these tools on corrosion, would be like using a Minivan for a Grand Prix race, or that F1 Car for running the kids to music lessons! Any kind of tool is typically designed for a specific use, and adaptation isn't 'good enough'.



The picture on the left is for the most basic form of a Tire Tread Depth Gauge. These slider type models are not very robust and only offer a 1mm (1/20") accuracy. The picture to the right, is of a Digital Tire Tread Gauge, which is a 'high tech' version of the slider gauge. To the inexperienced corrosion inspector, these Tread Gauges may appear to do the job, but they have several significant short comings. We won't include the slider model (left) in this discussion, as no one in their right mind would think of using a promotional trinket on corrosion.



So what's wrong with the Digital Tire Tread Depth Gauge for measuring corrosion? Firstly, it is rather tall, which makes it awkward to handle with one hand. This is because its range is just over 30mm (1.25"), which is a little excessive for most corrosion measurements. Such deep corrosion will cover a large area in excess of what Tire Gauge's blade can handle. Second, the contact point needs to be carefully placed into the deepest area of the pit before the contact blade is pushed to the surface....in short, you can't scan through the pit with it, so it will take a 'month of Sundays' to find the deepest area of a pit. Third, the contact point is difficult to see, as there isn't a cut-away to view the target area. Lastly, and most significant, is the contact point is not oriented in the centerline of the blade, so it is next to impossible to attain an accurate measurement on a curved surface, unless the work piece is the diameter of a tire.

The days of using an adapted tool for something other than its intended use are over. It's the same reason we differentiate the type of work an inspector is performing...you don't hire an Pipeline X-Ray hand to perform an API 510 evaluation, especially if you want to keep costs down. This is why you've considered a Pit Gauge from Western, you want the best advice for your critical inspection, so call one of our experienced distributors for the right advice on corrosion depth measurement.