geo FENNEL

ACCURACY OF M 10 PRECISION MEASURING WHEEL

The true technical accuracy of the M10 is approx. ± 0,05%.

However, according to our customers and test measurements carried out by us the average accuracy to be obtained with measuring wheels is approximately +/- 5%. This deviation is mainly due to the conditions of the distance to be measured.

1- Reasons for wrong measuring results

a- Measuring result is too high-
Under typical working conditions it is normally not possible to follow a straight line. Consequently customers are measuring slight serpentines.

b- Measuring result is too low- if dirt, concrete or asphalt is sticking to wheel.

2- Checking the accuracy of a measuring wheel

Set up test rail of at least 10 m. Test rail must be absolutely even. Set counter to 0 and start measurement holding handle in strictly vertical position. Measure 10 m distance following a straight line.

Make sure that at end of test rail handle is again in strictly vertical position.
Repeat measurement 4 times so that total distance of 50 m is measured. According to geo-FENNEL accuracy should be better than 0,15 m at distance of 50m.

Accuracy for Measuring wheels according to German government standards is ± 1% = 0,5 m at 50 m.

3- Is there any way to re-calibrate Measuring wheels?

There is no such way. On the other hand there is no necessity for readjustment. As long as counter is working it will give correct results.

If circumference of wheel (1.00 m) has changed due to wear or acid wheel is to be replaced. This is seldom.

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