

## Once Upon a Time...

Joe Pustka



Sometimes I wonder if the publishers of instrument specifications think they are writing fairy tales for children. That would be a kind explanation...

Here's my beef:

In [leak testing](#) [1] as in any sensor-based NDT test methods, the accuracy of sensors will inevitably have bearing on the test results. But sensors alone are never the whole story. It's the accuracy of the entire leak testing SYSTEM that needs to be considered.

There are actually some telling ways to identify sensor accuracy reports that seem like they are "too good to be true" because they ARE "too good to be true".

Any NIST traceable sensor would always be calibrated by an independent calibration device that has four or five times the accuracy of the sensor being calibrated. Ask if you can see the published and third-party independently verified calibration standards. Better yet, ask if you can watch such a calibration at work in the instrument manufacturer's facility. If such a visit is off-limits—walk away!

A second and most important question to ask directly and bluntly about any published specification is if that accuracy is ONLY for the sensor or if it is for the entire system that the sensor works within. That's where the REAL discussions on best match NDT test technology for your application should begin, and where they always will go when you request a two-day turnaround report on the best [USON](#) [2] [leak detector](#) [3] for your application.

I recently received a few calls asking if we could achieve measurement accuracy a full order of magnitude higher than that used by the lion's share of medical device manufacturers whom USON has helped with leak testing solutions for nearly half a

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century. If I was going to be flip I'd say—"Sure, we can get you that accuracy if you want each test cycle to last about a week."

However, I don't want to be flip.

I do want to say that realism matters.

Instrument specifications that make claims such as accuracies taken out of real world contexts are nothing more than nice bedtime stories for managers who want comfort instead of objective sourcing of best-in-class NDT methods that align with the laws of physics.

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[1] [http://www.uson.com/Products/By\\_Industry/Medical/](http://www.uson.com/Products/By_Industry/Medical/)

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