

"Witchcraft and Black-boxery"; NO, the LDi DIFFERENCE IS :-

1. Everything is seen in hard copy, 2. in real time, large black and white, 3. from certified pressure calibrated transducers.

CAN YOU SEE IT ?

Witch-Doctor

We agree with the scepticism, "you can make computer data say anything". We have even been shown so called pressure traces from totally different systems, to those under examination.

When it goes directly into a computer, you have no validation proof.

Oscilloscopes are fine, however when you have to play back to make a comparison, the operator thinks he can get away with showing you anything. There is only one solution. Hard copy; not just hard copy but high paper rate copy. Copy where a full 110 mm width can be allocated to one of multiple channels, where the paper streams out at not less than 200mm per second, 8 dot per mm, & 250 kHz real time.

In street language that means you can see evidence of events which occur in 0.65 of a millisecond, or you can clearly see 1000 + Hz activity.

The point is that now you have original detailed hard copy, play-backs are easily identifiable and validatable at any scale, making truly substantiatable analysis possible.

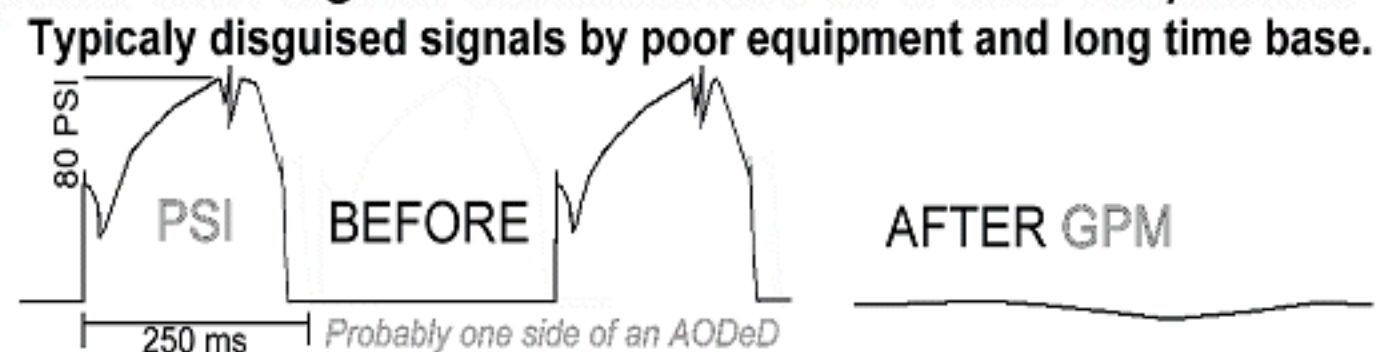
CAN IT BE DETECTED ?

When one dot = 5 "mil" 5/1000th of an inch - or - 0.125mm and is equal to 0.00065 seconds, it is essential to take a sample or reading more frequently. Unless the transducers have suitably responsive characteristics, all the best capture and printing, will be worthless.

A suitable transducer specification is :- A. Certified calibrated and with accuracy - including linearity, hysteresis and repeatability to 0.5% FSO B. Frequency response up to 10 kHz C. 10 Volt DC out.

Then from the oscillograph to the computer an IEEE488.1 or similar, parallel interface with a transfer rate of not less than 1 Megabyte per second. All used with signal conditioners of 5 kHz response.

It is easy to hide events and claim success before and after, when one shows pressure BEFORE, then flow AFTER See Right.



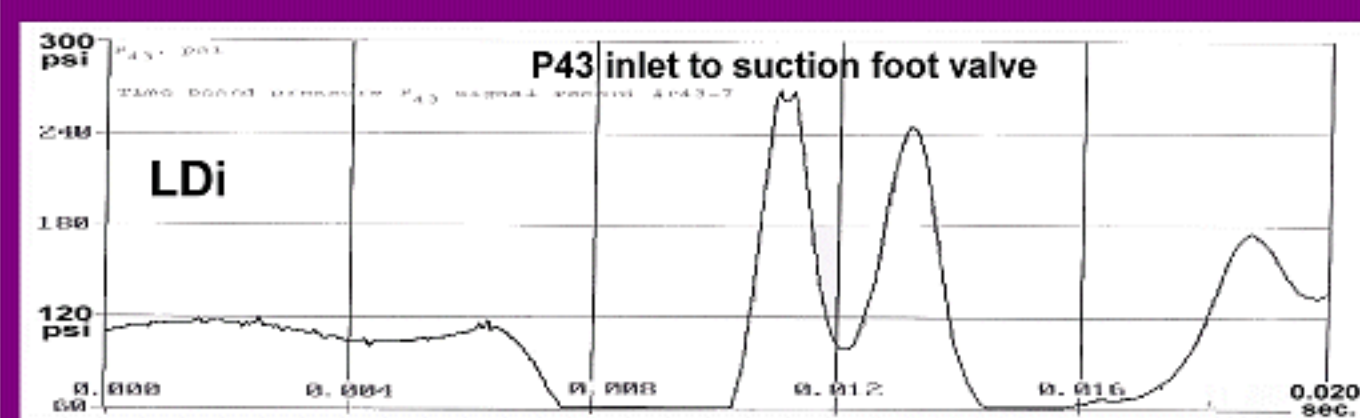
Which-Analyst

There are analysts who specialize in building electrical systems of resistances, applying an AC sine wave, and calling it a simulation of a pipe system. There are step functions or discontinuities that are essential to understanding liquid mass transfer, that this method neglects to simulate.

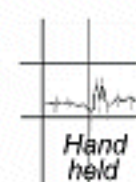
There are specialists who will instrument your system, stream the data onto a local computer, drag the data into their own computer periodically, via the internet, and apply "triggering software" to alert them to abnormalities. They will call you days in advance to alert you to a valve going bad.

Then there are those, who believe that data capture of noise, is literally as good as experienced ears and a stethoscope.

LDi are not in any of these categories. We believe in displaying and explaining enough for you so that you will not need us in future. Adding to the understanding of systems in our purpose.



The base time of each is 0.020 Seconds they are the same event



Take your pick

