
LIGHTBULB THEORY

INCREASING EFFICIENCY GOING HORIZONTAL



ENRX, INC.

Question- How many people does it take to change a "warehouse" lightbulb?

IT DEPENDS ON WHETHER THEY USE A LADDER OR A SCISSOR LIFT!

We are often asked why Vertebrae Well Systems (nested horizontal wells) will be advantageous for use at their project site. The following analogy helps explain why horizontal is more efficient. Imagine having to change 100 light bulbs in a 20 ft high warehouse.

In the past this would have been done using a ladder. Up and down, changing out one bulb at a time. Now everyone usually uses a scissor lift to do this work, changing multiple bulbs at once reducing the time required and most importantly in a much safer way. Additionally, companies would not choose this method if it were not also cost effective. This is also true for horizontal treatment wells. **We can install many individual well screens within a single horizontal bore** or sets of bores completing an intricate, customized, and controllable design that compares to any vertical layout.



CONTROL WHERE IT MATTERS

So, if you're going to replace the light bulbs at your project, how about doubling the lumens by using a more efficient LED bulb. Or wait, what if you don't want more light? How about going green by using the same output consuming much less power. Vertebrae do just that.

What separates Vertebrae Well Systems from conventional horizontal remediation wells is control.

Imagine being able to turn on and off every single lightbulb on its own, only providing light where you want it. But it gets even better, all the lights are on dimmers allowing as little or as much light as needed. This is like having all the light bulbs on wifi and controlling them with your phone (we can do this with our automated Support Platform injection system and our phones). This is how much more efficient Vertebrae wells are over traditional horizontal remediation wells. It is not even close when properly compared.

To wrap it up, **if you aren't using Vertebrae Well Systems, you are using old inefficient light bulbs and installing them in a less effective way.** The alternative is night and day.

Thanks for reading,

Lance Robinson, P.E.

President, EN Rx, Inc.

The installation can typically be completed in much less time. In addition, the drilling is completed in a much safer environment with each bore usually placed beneath site utilities, using safer autoloading drill rigs, placing fewer people potentially in harm's way with choices for drilling setup locations and ultimately a single treatment/sampling area where all of the individual well screens are located.

The well installation is completed without impacting any surface structures or other obstacles typically problematic for vertical well installation tools, much like a scissor lift allows the ability to reach over objects. After experiencing these positive benefits our clients wonder why would you do it any other way!

But wait, there's more...

The reality is that horizontal remediation wells, namely Vertebrae, provide more screen design capabilities and better formation contact than traditional vertical wells in typical contaminant plume geometries. This means they are HIGH performance and often 'clean up' sites in significantly less time.

