

Why would I choose a longer electrode length?



Bulb of electrode is trapped in thick viscous layer near the wall of the tank.

Sometimes the tank wall can become coated with a thick layer of viscous material that does not mix well with the rest of the media. If the pH sensing bulb of the electrode is located just a couple of inches inside the tank wall, the bulb might be smothered by this viscous layer. Subsequent pH readings may not be representative of the bulk of the media circulating in the rest of the tank. In the illustration at the right, the pH electrode's bulb is trapped in this slow moving viscous layer near the tank wall. The electrode is only measuring the pH of this layer.



A longer sensor and housing extend further into the tank. The sensing bulb of the pH probe is past the viscous zone.

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The solution to this problem described above is to choose an electrode and matching housing that extends further into the tank. This will position the pH sensing bulb away from the tank wall and place it closer to the circulating media further inside the tank. The subsequent pH measurements will be much more representative of the circulating media. In the illustration to the right, the electrode and housing protrude past the viscous zone and into the area of well stirred and circulated media within the production tank.

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