



## Have you ever broken the glass on your pH sensor?

Breakage of pH glass element during maintenance for cleaning and recalibration is one of the common and major costs of ownership of a field pH sensor installation. This can be particularly problematic for those sites with high solid and particulate content as the sensor is more vulnerable to breakage not just during the maintenance but also during inline service. Such breakage is rarely, if ever, covered under warranty and so becomes a part of the cost of ownership. There now exists a solution to significantly reduce this aspect of the cost of ownership due to breakage with our new rugged thick-wall low-profile impact and break resistant parabolic style pH glass which is now standard for all slurry/viscous resistant X3XX series pH sensors. This very rugged pH glass configuration substantially reduces likelihood of pH glass breakage in field use for tough application such as those in pulp mills, mining ore refining and other processes with high solid and particulate content, sometimes also combined with high flow velocity or pressure conditions.

The new thick-wall low-profile parabolic pH glass configuration is highly impact and break resistant while offering the typical advantages offered by the more traditional flat pH glass styles such as minimal fouling and build-up from the process from slurries, high-viscosity solutions, abrasives and particulates. In addition, due to inherently strong physics behind the low-profile parabolic pH glass configuration, this style of pH sensor also offers excellent results in high pressure, high velocity and high flow applications while still providing quite rugged impact and break resistance in addition to the minimal maintenance usually only possible for flat style pH glass configuration from competitors. Whereas flat pH glass from competitors are fragile and delicate and thus prone to breakage in real world field use our new new thick-wall low-profile parabolic pH glass configuration without the breakage issue of these flat style pH sensors.

The change from the old flat style pH glass to the new low-profile parabolic style pH glass for the slurry/viscous resistant pH sensors is immediate. The resistance of the low-profile parabolic pH glass elements is quite similar to that for the flat pH glass elements ranging up to an initial impedance of 2,000 MegaOhms with a target initial impedance of about 1,5000 MegaOhms. With this type of high impedance in mind, it is recommended to use an integral preamplifier whenever possible or else a very short cable length run in conduit mated with a very good quality pH transmitter for installations using the X3XX slurry/viscous resistant type pH sensor series. Most importantly, the entire line of ASTI pH sensors are available the new highly impact and break resistant thick-wall low-profile parabolic pH glass configuration.

The X3XX sensor specifications will shortly reflect the change to this new low-profile parabolic break resistant style glass.

Advanced Sensor Technologies manufactures advanced electrochemical sensors and transmitters for pH, ORP, ion selective (ISE), conductivity and dissolved oxygen (DO) measurements for use in a wide variety of industries such as mining, semiconductor, wastewater treatment, chemical manufacturing, food & beverage, dairy, pulp and paper, municipal and environmental monitoring.