

Rinse Water Sourcing and Quality

Session Questions and Answers

Q: I've heard DI water is acidic, isn't that a concern?

A: Because DI water is so pure, it will absorb CO₂ from the atmosphere and form a very mild carbonic acid. While it might read around a pH of 5, there is very little real acidity. DI water is safe and the preferred choice for use in rinsing your electronic assemblies.

Q: I can monitor the resistivity of my water, but what about the organics?

A: Organic content in water can be measured by COD (chemical oxygen demand) or BOD (biochemical oxygen demand.) The challenge is that these are specialized tests that measure reactions. For example, the BOD test is generally a 5-day process. There isn't yet a simple probe, like a resistivity or conductivity meter, for accurate organic measurement. So, the practical solution is to use a large granular activated carbon (GAC) tank and change it out on a conservative frequency.

Q: I have a batch washer with an onboard closed loop system, what type of water should I connect to it?

A: An onboard closed-loop water system means that the carbon and DI water system is built into the machine. This is good news in that you can connect any type of water to the washer (tap, RO, or DI) and the onboard system will purify it as necessary. Because the carbon and resin bottles are smaller, they will be depleted faster with lower quality feed water. This means they will need to be replaced more frequently, if tap or RO water is connected to the machine, than DI. So, we would recommend using DI water if available for maximum performance and longevity.

Q: What does TDS mean?

A: TDS stands for Total Dissolved Solids. It's a term more commonly used for drinking water quality. The lower the number, the smaller amount of material dissolved in the water. According to the World Health Organization, a TDS value less than 300 mg/L is excellent for drinking. For industrial applications, TDS just gives a value but doesn't tell the user what is in the water. High-quality DI water should have less than 1 ppm (mg/L) of Total Dissolved Solids.