

## **Total Viable Organism Results of Purified Water Systems in 18 Minutes**

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In many industries, purified water systems are one of the most important pieces of the final product equation. However, when using traditional plate count methods, possible contamination levels are not known for 5-10 days. Alternatively, using the RBD 3000 and the Total Viable Organism (TVO) Kit, it is possible to obtain accurate and consistent purified water counts within 18 minutes of sampling. Test samples were collected from two different faucets (A and B) of a de-ionized water system and analyzed in duplicate on the RBD 3000 periodically for 12 weeks. Background criteria were established by analyzing filter sterilized de-ionized water (n=96) samples. All samples were also plated in parallel on R2A agar in duplicate, incubated at room temperature, and counts were recorded after 5 and 10 days of growth. Seventeen sets of RBD 3000 counts for each faucet A and B were plotted against the plate counts. The RBD counts trended with the standard plate count method. Three of the 34 total samples analyzed from faucets A and B resulted in both RBD 3000 and R2A agar counts  $\geq 50$ cfu/mL, which would trigger an alert. The RBD 3000's 18-minute time to result allows for a proactive solution as opposed to reactive, because potential contamination would be detected 5-10 days sooner than by the standard plate count method.