

[ABS33]

## New Qualitative Respirator Fit Test System: Qfit

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TSI Incorporated has developed a new qualitative respirator fit test system, the Qfit™ Qualitative Respirator Fit Test System and has obtained a letter of equivalency from OSHA for the Qfit fit test system, an automated nebulizer to be used with the existing Saccharin and Bitrex™ Qualitative Fit Test (QLFT) Protocols as described in Appendix A of 29 CFR 1910.34: Fit Testing Procedures. The automated Qfit fit test nebulizer developed by TSI is a pump driven, battery powered, hand held device that uses pre-filled solution cartridges to dispense sensitivity and fit test aerosols. TSI configured the Qfit fit test nebulizer with four timing protocols so that the operator can choose to run any of the scenarios described in 29 CFR 1910.34 Appendix A: sensitivity as well as fit testing. Benefits include:

- Significant reduction in workload, ranging from 80 to 95%. The original QLFT protocol requires the operator to compress a squeeze bulb 85-255 times, which can! lead to repetitive stress disorders, muscle fatigue and incomplete/non-consistent squeezes and generation of test agent aerosols.
- The aerosol produced by the TSI Qfit fit test pump driven nebulizer will not vary significantly within or between fit test operators.
- Compliance with the QLFT protocol is reinforced by the automation of the TSI Qfit fit test nebulizer.
- The pre-filled solution cartridges use the exact concentrations specified by the OSHA standard, preventing operator error in mixing/solution preparation and handling issues.