

RESPIFIT™

Respirator Qualitative Fit Test Kit

Part No. 7013304-1

TESTER INSTRUCTIONS

WARNINGS

Read these instructions in their entirety, including all warnings and cautions before performing the Respirator Fit Test.

*DO NOT generate smoke into hood, tent or any other confinement placed over head of test subject. **SERIOUS INJURY CAN OCCUR.** Respirator fit testing must be performed in strict compliance with OSHA 29CFR 1910.134 Irritant Smoke Respirator Fit Test Protocol.*

Use only in well ventilated areas. Avoid breathing the smoke directly. Wear respiratory protection if the smoke cannot be avoided. Extended exposure to high concentrations of the smoke may cause injury.

Part A: General Requirements & Precautions

- Only Sensidyne No. 5100 Smoke Tubes and the RespiFit™ Smoke Tube Pump (200 ml/min) are to be used with this Fit Test Kit according to the protocol described in these instructions.
- During sensitivity screening (Part C) make certain the Test Subject (“Subject”) can detect irritant smoke. However, use only the minimum amount of smoke necessary to elicit a response from the Subject. *Remember*, smoke can be irritating to the eyes, lungs, and nasal passages. Always take precautions to minimize the Subject’s exposure to irritant smoke. Sensitivity varies, and certain people may respond to a greater degree to irritant smoke.
- The fit test shall be performed in an area with adequate ventilation to prevent exposure of the person conducting the fit test or the buildup of irritant smoke in the general atmosphere. Do not use irritant smoke tubes in conjunction with concentration hoods or tents designed for other fit test protocols.
- Consult the respirator manufacturer to determine which models may be fit tested using OSHA’s irritant smoke protocol. Not all respirators are designed to protect the wearer from irritant smoke.
- The Sensidyne fit test protocol is adapted from 29CFR, Part 1910.134, Appendix A. Consult that document for complete irritant smoke fit test instructions.

Part B: Preparing for Fit Testing

The RespiFit™ Respiratory Qualitative Fit Test Kit contains the following items:

- RespiFit™ Smoke Tube Pump
- “AA” batteries
- Box of Smoke Tubes
- 30” of Tubing
- 1” Tube Pieces
- Smoke Tube Caps
- Instructions

Prepare for the test as follows:

- 1) Remove pump and tubing from shipping box.
- 2) Install the 4 “AA” batteries in the pump and briefly turn pump on and off to test it.
- 3) Install the 30” piece of tubing to hose barb on pump.
- 4) Take a smoke tube from the box and insert it in the tube breaker on the pump. Twist the tube full circle to score it. Break off the tube end.
- 5) Take a 1” piece of plastic tubing and place it over the broken tube end.
- 6) Take the unbroken tube end and insert it in the tube breaker on the pump. Twist the tube full circle to score it. Break off the tube end.
- 7) Insert smoke tube into the long tubing attached to pump, then go to Part C: Sensitivity Screening Check.

SENSIDYNE®

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Revision B • Document No. 7013304-1M

Part C: Sensitivity Screening Check**IMPORTANT**

Make certain you read and understand ALL precautions and requirements listed in Part A of these instructions

Sensitivity Screening is conducted to demonstrate that the Subject is able to detect a weak concentration of smoke.

Perform the Sensitivity Screening Check as follows:

- 1) Use the testing apparatus prepared in Part B.
- 2) Tell the Subject that smoke can be irritating to their eyes, lungs, and nasal passages. Also tell the Subject to close his/her eyes while the test is performed. This screening will be done before the Subject dons the respirator. This allows the Subject to become familiar with the irritating properties of the smoke and to determine if he/she can detect its presence.
- 3) Turn on the pump only long enough to generate a small amount of smoke away from the subject's face, then turn the pump off. Carefully fan your hand toward the Subject to bring the existing smoke closer to the Subject's face.
- 4) Allow Subject to smell a weak concentration of the irritant smoke and to determine if he/she can detect its presence.

Part D: Irritant Smoke Fit Test Procedure

- 1) Have the Subject don the respirator without assistance and perform the required user seal checks.
- 2) Tell the Subject to keep his/her eyes closed during testing.
- 3) Turn on the pump and direct the stream of irritant smoke from the smoke tube toward the face seal area of the Subject. Begin at least 12 inches from the facepiece and move the smoke stream around the whole perimeter of the mask. Gradually make two more passes around the perimeter of the mask, moving to within six inches of the respirator.
- 4) If the Subject has not had an involuntary response and/or detected the irritant smoke, proceed with the test exercises.
- 5) The exercises identified in Part E shall be performed by Subject while the respirator seal is being continually challenged by the smoke, directed around the perimeter of the respirator at a distance of six inches.
- 6) If person being fit tested reports detecting the irritant smoke at any time, test is failed. A Subject being retested must repeat the entire sensitivity check and fit test procedures.

- 7) Each Subject passing the irritant smoke test without evidence of a response (involuntary cough, irritation) will be given a second sensitivity screening check, with the smoke from the same smoke tube used during the fit test, once the respirator has been removed, to determine whether he/she still reacts to the smoke. Failure to evoke a response shall void the fit test.
- 8) If a response is produced during this second sensitivity check, the fit test is passed.
- 9) After all fit testing has been completed, turn off the pump. Remove the Smoke Tube from the long tubing and cap it. Remove the short piece of tubing from the Smoke Tube. Cap the Smoke Tube. Put the capped tube in a cool, dry, safe place until next testing.
- 10) Turn on the pump briefly to clear the long tube of any remaining smoke. Put the pump and tubing away until next testing.

Part E: Test Exercises

Each test exercise will be performed for 1 minute by the Subject while in the test environment. The respirator should not be adjusted once the test exercises begin. Any adjustment voids the test, and the fit test must be repeated. All test exercises will be performed while Subject is standing (except Exercise #6: Bending Over). The Subject will be questioned by the Tester regarding the comfort of the respirator after completion of testing. If the respirator is not comfortable, another model will be tried and testing repeated.

- 1) **Normal Breathing.** Subject breathes normally. No talking.
- 2) **Deep Breathing.** Subject breathes slowly and deeply (take caution not to hyperventilate).
- 3) **Turning Head Side to Side.** Subject slowly turns head to extreme left, inhales & exhales, then slowly turns head to extreme right, inhales & exhales. Repeat for 1 minute.
- 4) **Moving Head Up & Down.** Subject slowly moves head up & down for 1 minute while inhaling in the up position.
- 5) **Talking.** Subject talks slowly and loud enough for Tester to hear. Subject can read prepared text, count backwards from 100, recite a poem, etc.
- 6) **Bending Over.** Subject bends over at waist as if to touch the toes. Jogging in place may be substituted if bending over at waist is not permitted.
- 7) **Normal Breathing.** [Same as Exercise #1].