

## VeriFit<sup>®</sup> Irritant Smoke Generators



### Nextteq's Complete Line of Respiratory Protection Products

#### Products include:

**Compressed Gas Monitoring\***

**Irritant Smoke Tube Kit  
for Respirator Fit Testing and  
Airflow Indication\***

**Airflow Test Kit**

**> VeriFit Irritant Smoke  
Generators for Respirator  
Fit Testing**

#### **First All-in-One Irritant Smoke Generator for Respirator Fit Testing**

The VeriFit Irritant Smoke Generator revolutionizes respirator fit testing. Its patented plastic design integrates all traditional fit testing kit components into one convenient device. The small bellows size provides the optimum amount of smoke for fit testing yet minimizes the risk of overexposure.

Unlike other test methods, there is no need for chamber construction, nebulizers, electric pumps, mixing jars, batteries, special test masks, mask probes, or testing hoods. There are also no parts to calibrate, warm up, sterilize, or clean.

The VeriFit Irritant Smoke Generator comes ready to use. Everything you need for immediate qualitative fit testing is in one sleek, safe, and convenient smoke generator.

\* Uses Gastec Tubes.

**SIMULATES REAL WORKING CONDITIONS  
REDUCES HEALTH RISK**

Irritant smoke fit testing simulates real working conditions. At no time are test subjects required to hold their breath after vigorous exercise, a potentially stressful condition that could be detrimental to the test subject's health. Also, there are no test hoods; and test subjects are allowed to breathe normally through the entire test.

**ELIMINATES DANGER FROM BROKEN GLASS  
INCREASES SAFETY**

The VeriFit Irritant Smoke Generator's plastic construction is a safer alternative than traditional irritant smoke test kits. Traditional kits use glass tubes that must be broken to elicit smoke. The broken glass can become hazardous to handle and discard.

To use a VeriFit Irritant Smoke Generator, simply bend the plastic tube to break the enclosed ampoule. Because the ampoule is inside the tube, there is no danger of exposure to broken glass. As a result, the VeriFit Irritant Smoke Generator is safer to operate and discard.

**INCORPORATES ALL-IN-ONE DESIGN  
READY TO USE**

The VeriFit Irritant Smoke Generator's patented all-in-one design saves you prep and clean-up time. There are no parts to warm up, calibrate, clean, or sterilize. The VeriFit Irritant Smoke Generator is always ready to use.

All aspects of a traditional irritant smoke fit test kit are incorporated into one handy device. The bellows and ampoule are conveniently integrated into a sleek smoke generator. Unlike traditional smoke test kits, there are no additional components to attach, lose, or replace.

**GENERATES PRECISE SMOKE VOLUME EVERY TIME  
MINIMIZES RISK OF OVEREXPOSURE**

The VeriFit Irritant Smoke Generator's bellows produce a precise volume of air with each complete compression. There is no user calibration or complex, error-prone flow rate to set. Because you control the compressions, you control the amount of smoke generated. Manual operation ensures greater safety and precision.

The risk of overexposure to smoke is also minimized due to the small bellows size. The VeriFit Irritant Smoke Generator is a safer option than traditional irritant smoke test kits that can have less precise smoke measurements or greater smoke production.

At 5 inches long with a 1 inch diameter, each VeriFit Irritant Smoke Generator has a compact shape that is easily handled and stored. The video box-sized package contains 10 complete smoke generators and manual, yet conveniently fits in a desk drawer or stands on a bookshelf.



Actual Size

# VeriFit<sup>®</sup> Irritant Smoke

**Each package of VeriFit<sup>®</sup>  
Irritant Smoke Generators  
(50811000-310N) includes  
the following:**

- **Ten (10) Smoke Generators**  
(each a complete fit testing kit)
- **One (1) Durable Storage Box**
- **One (1) Comprehensive Manual**



**Irritant smoke is the only OSHA-accepted qualitative fit testing method that relies on the test subject's involuntary response. It does not rely upon test subject's sense of smell or taste.**

**Qualitative fit tests such as banana oil (isoamyl acetate), saccharin, or Bitrex may cause false negative results. A common cause of false negative results is the failure of a test subject to identify a leak in the respirator.**

**Many factors cause test subjects to not notice a leak:**

- **Olfactory fatigue (reduction in ability to smell)**
- **Gustatory fatigue (reduction in ability to taste)**
- **Allergy or common cold**
- **Ingestion of food or drink**
- **Reduced sense of smell or taste due to aging, smoking, or other causes**

# Generators for Respirator Fit Testing



## Field-proven as an OSHA-accepted respirator fit testing method since 1982.

Irritant smoke qualitative respirator fit testing is an economical, fast, safe, and reliable fit testing method. Irritant smoke is used for testing a wide variety of respirators by firefighters, HazMat teams, first responders, the U.S. military, and countless industrial users. VeriFit Irritant Smoke Generators are designed to meet and be used in accordance with OSHA 29 CFR 1910.134.

## Ready to use in 3 simple steps!



1. Just bend the smoke generator to break the enclosed ampoule.



2. Remove cap.



3. Wait 5 seconds and compress bellows.

### WHEN TO CONDUCT A RESPIRATOR FIT TEST

OSHA 29 CFR 1910.134 requires that an employee using a tight-fitting facepiece respirator be fit tested at the following times:

1. Prior to initial use of the respirator.
2. Whenever a different respirator facepiece (size, style, model, or make) is used.
3. At least annually.

An additional fit test is required whenever the following occurs:

1. The employee reports changes in his/her physical condition\* that could affect respirator fit.
2. The employer, PLHCP (physician or other licensed health care professional), supervisor, or program administrator makes visual observations of changes in the employee's physical condition\* that could affect respirator fit.

\* Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

# VeriFit® Irritant Smoke Generators

## Compare Qualitative Fit Testing Methods


	<b>Irritant Smoke</b> <i>Stannic Chloride</i>	<b>Banana Oil</b> <i>Isoamyl Acetate</i>	<b>Saccharin</b> <i>Solution Aerosol</i>	<b>Bitrex</b> <i>Denatonium Benzoate</i>
RELIABLE involuntary response if respirator leaks	<b>Yes</b>	No	No	No
ELIMINATES false negatives caused by olfactory or gustatory fatigue, loss of sense of smell or taste due to age or illness	<b>Yes</b>	No	No	No
ELIMINATES time spent preparing sensitivity test mixtures	<b>Yes</b>	No	No	No
ELIMINATES extra cost of nebulizers, pumps, hoods, and test mixing apparatus	<b>Yes</b>	No	No	No
ELIMINATES time and cost of chamber construction, pump and nebulizer calibration, battery charge time, test mask and probe sterilization, and clogged nebulizer cleaning	<b>Yes</b>	No	No	No
Test subject may eat, drink, chew gum, or smoke before test and not void test results	<b>Yes</b>	Yes	No	No
ELIMINATES cost of 2 nebulizers and time spent cleaning nebulizer every 4 hours	<b>Yes</b>	No	No	No

## Respirators That May Be Qualitatively Fit Tested With Irritant Smoke\*

<b>RESPIRATOR TYPE</b>	<b>OSHA Accepted for Irritant Smoke Fit Test</b>
HALF FACE MASK - negative pressure, APR (100 fit factor)	Yes
FULL FACE MASK - negative pressure, APR (100 fit factor) used in atmospheres up to 10 times the PEL	Yes
POWERED AIR PURIFYING RESPIRATOR (PAPR)	Yes
SUPPLIED - AIR RESPIRATOR (SAR) - used in positive pressure (pressure demand mode); IDLH atmospheres	Yes
SELF-CONTAINED BREATHING APPARATUS (SCBA) - used in positive pressure (pressure demand mode); structural firefighting; IDLH atmospheres	Yes
DISPOSABLE PARTICULATE RESPIRATORS (N100) - Filters at least 99.7% of airborne particles. Not resistant to oil. (R100) - Filters at least 99.7% of airborne particles. Somewhat resistant to oil. (P100) - Filters at least 99.7% of airborne particles. Strongly resistant to oil.	Yes
MOUTH BIT RESPIRATORS	Fit Testing Not Required
LOOSE FITTING RESPIRATORS - e.g. hoods, helmets	Fit Testing Not Required

\* Adapted from OSHA Compliance Directive, CPL 2.120 Inspection Procedures for the Respiratory Protection Standard, Sept. 18, 1998.

## Ordering Information

<b>P/N</b>	<b>DESCRIPTION</b>	
50811000-310N	<p>VeriFit® Irritant Smoke Generators for Respirator Fit Testing Each package includes the following:</p> <ul style="list-style-type: none"> <li>• Ten (10) Smoke Generators (Each a Complete Fit Testing Kit)</li> <li>• One (1) Durable Storage Box</li> <li>• One (1) Comprehensive Manual</li> </ul>	



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Gastec tubes and pumps are manufactured by the Gastec Corporation. Nextteq is Gastec's exclusive U.S. master wholesale distributor.

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