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QUANTIFIT®

The Industry Leader in Mask Fit Testing

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Quantifit...the Gold Standard in Respirator Fit Testing

Here's how the Quantifit works:

During a fit test, the respirator inlets are capped with test adapters, and the inhalation valves are propped open or removed from the mask. With the test subject holding his or her breath for no more than ten seconds, the Quantifit then establishes and maintains a slight vacuum, or ***controlled negative pressure****, inside the mask. Since the respirator inlets are sealed, all sources of leakage into the mask are through the face-to-facepiece seal or due to integrity issues. The volume of air drawn out of the mask by the Quantifit during this short period of time is equal to the leak rate into the mask through the face-to-facepiece seal.*

"I wanted to thank you for all of your assistance in our migration to the Quantifit Fit Test Machine. As we start to migrate over to the newer machine we are finding that we are able to perform the fit tests in about half the time, or less, from what it was taking us before. Since we perform about 5,000 fit tests annually, we will see a reduction in overtime costs and a real-time savings for staff as well.

As you know both myself and my staff spent a lot of time researching the available products for fit testing and chose to use the OHD Quantifit. This decision was made based off several factors including immediate cost, long term operating costs, customer service, ease of use and ease of training, and the time involved in each actual test. The Quantifit was the clear winner for our needs."

–Bill Merritt (Maryland Department of Corrections) Executive Director – Environmental Compliance, Safety and Emergency Operations.

"The purpose of a fit test is not just to see if a particular size/make/model of masks fits an employee's face well, but also to ensure the employee can put it on correctly in a way that consistently provides a good seal. The growth of my small company has been built on a reputation for providing a high level of expertise and attention to detail to a diverse base of respirator users, from construction workers to first responders. The use of OHD's controlled negative pressure technology has been an important part of our success, and their customer service team has been behind us every step of the way."

–Carlo Emami (Safewest) Instructor/Trainer

Features & Benefits

Proven Technology The OHD Quantifit is a highly specialized instrument which utilizes the scientifically-proven and patented CNP (Controlled Negative Pressure) technology to directly measure respirator leakage. The OHD Quantifit is accepted by OSHA and appears in the Federal Regulations governing fit testing [29 CFR 1910.134]. The Quantifit is also included in the Canadian Standards [CSA Z94.4-2011] and UK HSE Standards [EN132-149], as well as ANSI Z88.10-2010.

Fastest Fit Testing Available With the OSHA-approved CNP REDON respirator fit test protocol, a fit test can be performed in as little as 2-3 minutes with no waiting period for smokers as required with other fit test methods. The REDON protocol uses CNP technology's superior speed and accuracy to help achieve the best respirator fit possible.

Multiple Donnings The OHD Quantifit, with its CNP technology, is the only system in the world that uses multiple donnings within the fit test. Multiple donnings ensure that the worker knows how to don the respirator correctly with each use.

Most Health Protective Peer-reviewed scientific studies have shown that the OHD Quantifit produces much more accurate, more health protective, and more believable test results than other systems. In studies where a known calibrated respirator leak was present, the OHD Quantifit measured 98% of known calibrated leak. The aerosol-based system measured only 37% of known calibrated leak[1].

Easy to Use The Quantifit takes the user through the test protocol step-by-step so that there is no guess-work, and very little time is needed to instruct the employee being tested. There is no instrument warm-up period to worry about, and the one-minute daily calibration ensures that the Quantifit is working within a strict tolerance. Ease of use means less mistakes, and quicker testing.

Most Rigorous Test Using a challenge pressure of 53.8 – 93.1 L/min, the OHD Quantifit stresses the mask as an employee would while breathing heavily under extreme physical conditions. The use of air as a standard (non-varying) gaseous challenge agent provides a more rigorous test of mask fit than an aerosol agent. If air leaks into a respirator, there is a chance that the particles, vapors, or gas contaminants also may leak in. While aerosol-based systems can only see particles that may enter the respirator, CNP detects potential health hazards from contaminates smaller than particles.

Direct Measurement of Leak The Quantifit directly measures facepiece leakage. The unit precisely measures leak rate (in cc/min) by determining the amount of air that leaks into the respirator during the fit test. Other test methods infer leak, while the Quantifit is the only system that directly measures the leak.

NIST Calibration The ability to calibrate the Quantifit with generally available primary calibration systems assures a higher standard of test results (NIST traceable standard).

No Consumables The OHD Quantifit eliminates the need for consumables in order to perform a fit test. Unlike older technologies that require probes, wicks and alcohol solutions, the Quantifit simply needs air for testing. This reduces the ongoing cost of replacing fit testing consumables and improves the user's ability to test.

Test in any Environment With the patented CNP technology, OHD clients can perform fit testing in any environment. Outside, inside, dirty environments or clean environments, as long as air is present, the Quantifit can perform fit testing. Remove the concerns of lighting candles, blowing salt fog or filtration systems in a building. Choose the unrivaled technology of Quantifit to test "Anytime – Anywhere!"

[1]*C Crutchfield, D Park,* Effect of Leak Location on Measured Respirator Fit, *Am. Ind. Hyg. Assoc. J. 58:413-417, 1997.*

Quantifit Specifications

Dynamic Range
Leak Test Measurement
2 – 5,000 cc/min
Resolution
0.1 cc/min
Fit Factor Computation
6 – 53,000

Pressure Sensor Parameters
Pressure Range
0-20 inches H_2O
Resolution
0.01 inch H_2O
Accuracy
± 0.25% FS
Over-Pressure Limit
60 inches H_2O
Temperature compensation
15° to 30° C (60° to 85° F)

Instrument Accuracy
Challenge Pressure
± 5 %
Leak Rate Measurement
±3% or ±3 cc/min, whichever is greater

Display
LCD Graphical 128 X 64 Pixels

USB Interface
Dual Type A Ports
Supports Keyboard, HP Inkjet printer, or memory stick
Single Type B Port
For connection to PC

Setup Memory
EEPROM, All Parameters

RTC, Datalog Memory
Rechargeable Battery

Data Retention
2 Years Without Power

Operating Range
15° to 30° C (60° to 85° F)

Storage Range
-40° to 60° Celsius (-40° to 140° F)

Construction
Enclosure – Polyethylene Plastic Chassis – 1/8" Aluminum, Face – Lexan, Back Printed

Size
5.5 x 10 x 15.5 inches
139.7 x 25.4 x 393.7 mm
(HxWxD)

Weight
< 7.5 lbs. (3.4 kg)

Connections
Pressure: Quick Connect
Vent: Female Luer
Trigger Button : Phono Jack

Power Source
100 –240 VAC, 50/60 Hz

Power Supply Adapter
9 VDC, 5000 mA

Power Consumption
Less than 1000 mA

Certifications
UL, CE, CSA

Warranty
Instrument Coverage
Two-Years Parts and Labor.
Accessory Coverage
One-Year Parts and Labor.
Technical Support
No-charge phone support to original owner of instrument.

Standard Accessories
Hardcase with roller wheels, custom insert, and retractable handle
USB Keyboard
Power Cord
Trigger Button
Triple Tube Assembly
PC USB Cable
FitTrack Gold Software
Training DVD
Operator's Manual

FitTrack Software
PC Requirements
Pentium 4, 2.5 GHz or better
RAM
2 MB or greater
Operating System
Windows® 7, 8, 10
Digital Interface
USB 2.0 Port
Disc Space
400MB minimum
Printer used with software
Any Windows-compatible printer

Optional Accessories
Fit Test Respirator Adapter
USB Printer
Fit Test Card Laminator Kit
Extended Warranty
Prepaid Service Contract

Optional Respirator Fit Test Adapters
3M Company
Avon Protection
Draeger
GVS
Honeywell/Sperian
ISI
Interspiro
Kemira
MSA
Miller
Moldex
North Safety
RSI
Scott
Sundstrom
Call for information on additional models.

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