

XI. PORTACOUNT® QUANTITATIVE FIT TESTING

General

The PortaCount is an instrument to be used to perform quantitative fit testing. A quantitative Fit Test is an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator. The PortaCount can be used to fit test the 7000/7800/8000/9000 series and any disposable filtering facepiece respirator.

For 8000 Series, use 8006 and for 7000/7800/9000 use 7006 (you must use the correct probed cartridge for each model. They are prominently marked). A probed cartridge with P100 filter will be attached to one side of the 7000/7800/8000/9000 facepiece; the other side will have a regular P100 filter (see Appendix A for 7006 Instructions and B for 8006 Instructions). You must perform the fit test in this configuration even though the user will be using other cartridges in the field. This is accepted practice since you are only testing the face to facepiece seal, and not the efficacy of the filtration. Filtration has already been validated through the NIOSH approval. Once a facepiece is chosen for a particular employee, they can take the facepiece they were tested on to be used in the field, if appropriate. All they will need to do is attach the appropriate cartridges to the facepiece.

To perform a fit test on Moldex disposables, you will have to probe the appropriate respirator. You should perform the fit test on the same model and size that the employee intends to use in the field. After each test, the respirator should be discarded and a new one used for the next employee. **These probed respirators may not be used in the work environment.** Although this will result in some added cost for the employer, it generally only needs to be done once per year.

See Appendix D for the PortaCount Pro - 8030 and 8038 instruction manual. A copy is also included with the PortaCount when you order it through our Loan Program. When you wish to use the PortaCount and you will be ordering it from Moldex Technical Services, +1 (800) 421-0668, ext. 512/550. We suggest that you order it to arrive a few days in advance of when you will actually perform fit testing so that you can go through all the instructions and work with the unit, we suggest that you perform fit testing on yourself or someone else with the 7000/7800/8000/9000 and a few models of Moldex disposables to become very familiar with the instruments before you actually use them in the field.

Forms for Quantitative Fit Tests can be found in Chapter XIV.

#7006 Probed Cartridge Kit for 7000, 7800 & 9000 Series Reusable Respirators

Note: There are different probed cartridges designed for the 7000, 7800 and 9000 facepieces. The correct one must be used for the specific facepiece. DO NOT MIX THEM, but see Moldex note below.

Conducting the Fit Test

Before conducting a quantitative fit test, the #7000, 7800 or #9000 Series Respirator Facepiece must be assembled with the appropriate #7006 probed cartridge and the #7940P100 Filter Disk together with a #7920 Piggyback Adapter on one side, and a #7940P100 Filter Disk on the other side.

Assembly is as follows:

Before attaching the appropriate #7006 probed cartridge, inspect the facepiece to cartridge sealing surface. Make sure it is clean and undamaged.

1. Insert tube from cartridge into the cartridge retainer opening in the facepiece that is closest to the dot (see figure **A**).

Note: when used with the #9000 full face respirator you must also insert the longer tube into the handle opening in the nose cup, and past the rubber diaphragm (see figure **B**).



Figure A



Figure B

2. Align the triangle icons on both the facepiece and #7006 cartridge, then rotate the cartridge clockwise to install (see figure C for #7000/7800, Figure D for #9000).

CAUTION: Make sure that the tube is not kinked or obstructed in any way.

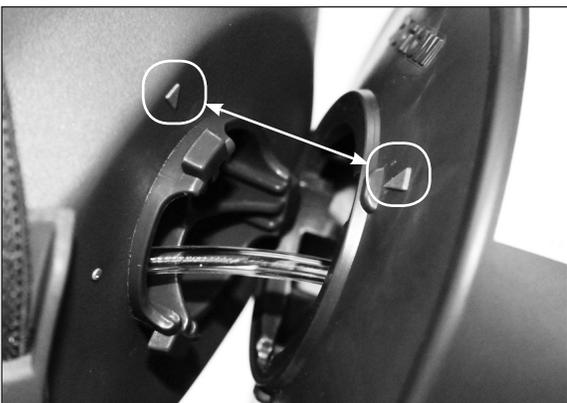


Figure C

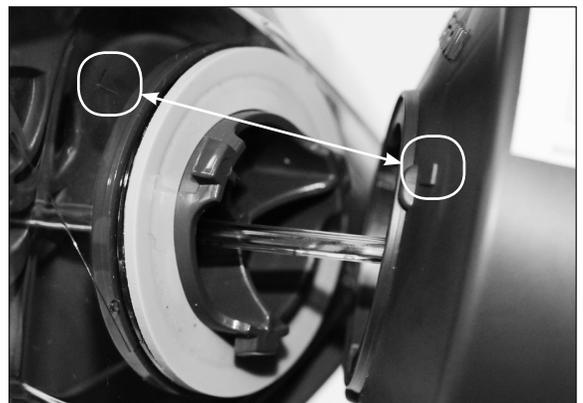


Figure D

3. Check to see that the probed #7006 cartridge is seated properly, both inside and outside the facepiece. Check the inhalation diaphragms for dirt or damage and check that they are seated properly.
4. Attach the #7920 Piggyback Adapter onto the #7006 Probed Cartridge.
5. Attach a new #7940P100 Filter Disk onto the #7920 Piggyback Adapter, making sure that the #7920 gasket is not dirty or damaged and is in place. If it is not, then replace with a new one and do not attach without a gasket. (see figure E for #7000/7800, Figure F for #9000)



Figure E



Figure F

6. Make a careful inspection of the #7920 and #7940P100 to ensure they are fully sealed.
7. Attach a #7940P100 onto the facepiece and check to see it is properly sealed. (see figure G for #7000/7800, Figure H for #9000) Check the inhalation diaphragm for dirt or damage and see that it is properly seated.



Figure G



Figure H

8. Attach the tube to the Quantitative Fit Tester and follow the instructions from the Fit Tester Manufacturer.