Instructions for using
TSI Model 8025-40mm or 8025-CEN Fit Test Adapter Kit

Kit Contents:

Qty.	Description
1	Adapter Assembly
50-ft	3/16-in OD × 1/8-in ID PVC Tubing*
200	Suction Cups*
200	Clips*
1	Scissor
1	Measuring Scale
1	High Efficiency Filter with 40-mm Thread
1	Storage Case
1	Instructions (this document)

*Reorder TSI Refill Kit part no. 800553 for additional Clips (200), Suction Cups (200) and Tubing (50-ft).

PORTACOUNT® Plus
Model 8020

The TSI Model 8025-CEN and 8025-40mm Fit Test Adapter is a device that allows a PORTACOUNT® Plus Respirator Fit Tester to quantitatively fit test virtually any tight-fitting respirator facepiece that has a standard 40-millimeter threaded inlet.

1. Expose the 40-mm threaded inlet on the facepiece. For negative-pressure masks, simply remove the filter canister. For positive-pressure masks such as SCBA and PAPR, remove the air supply hose and/or mask-mounted regulator to expose the 40-mm threaded inlet. If there is no 40-mm threaded inlet, this adapter will not work for that mask.

Note: Positive-pressure masks must be fit tested in negative-pressure mode as if they were a negative-pressure mask. This is in accordance with all fit testing regulations throughout the world including OSHA, ANSI, CSA, HSE, etc.

2. Attach a length of flexible tubing to the fitting on the front of the adapter.

The appropriate length is different for each type of mask. Use enough tubing to reach the breathing zone without stretching or pinching the tubing. For a full face masks, try using about 10 inches of tubing the first time. Excess tubing will be trimmed off the end inside the mask in a later step. Measure and cut the correct length of tubing for subsequent fit tests.

3. Thread the flexible tubing through the inhalation valve and into the breathing zone inside of the mask. Do ***not*** remove the mask's inhalation valve. The valve is necessary because it is also a gasket. Threading the tube through some full-face masks may be difficult because the air flow path is complex. It will become much easier with practice.

Failure to use a tube running into the inside the mask will result in fit factors that are artificially high.

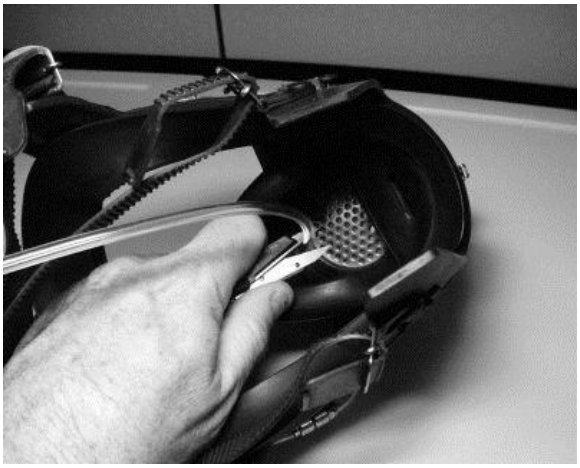
4. Screw the adapter onto the mask by spinning the outer ring.

Do ***not*** allow the adapter body to rotate and twist the flexible tubing.

If the mask is equipped with a nose cup, thread the tube through a nose cup inhalation valve and into the inside of the nose cup.

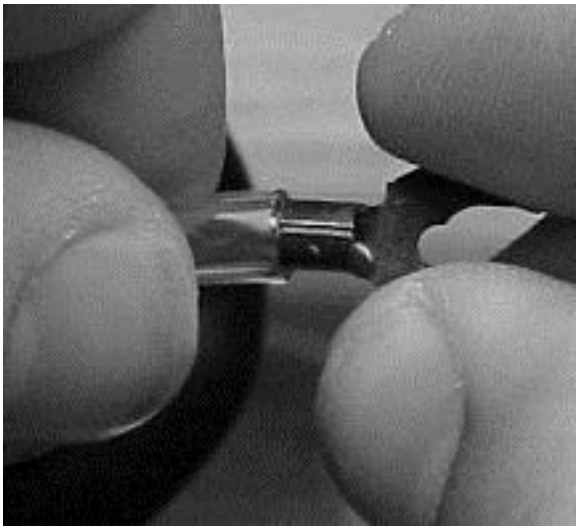
It is very important for the end of the tube to be located to allow air to be sampled from the breathing zone of the mask near the nose and mouth.

5. Trim any excess from the end of the tubing that is inside the mask (or nose cup) so that there is no unnecessary slack.



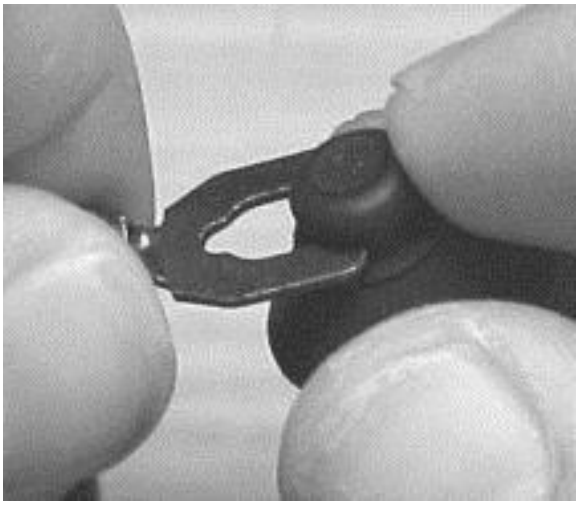
6. Attach a clip and a suction cup to the end of the tube that is inside the mask (or nose cup). The neck of the clip is hollow so that air may pass through it.

The purpose of the clip and suction cup is to anchor the end of the tube so that it cannot be inadvertently blocked due to contact with the skin, lips, or nose.



The suction cup, clip and tube will be contaminated by the breath of the person being fit tested. These parts should be discarded and replaced with new (clean) parts for each person. The kit includes 200 clips, 200 suction cups and sufficient tubing for about 200 fit tests.

Reorder TSI Refill Kit part no. 800553 for additional Clips (200), Suction Cups (200) and Tubing (50-ft).



7. Attach the suction cup to a smooth surface inside the mask near the nose and mouth. Make sure the tubing inlet cannot be accidentally blocked. The suction cup may stick better if the mating surfaces are wetted or wiped with an alcohol swab first.

8. Screw a filter canister onto the back of the fit test adapter. Make certain that the filter is a high-efficiency type filter (HEPA, P100, P3, etc.) with a 40-mm thread.

This kit includes a 40-mm P100 filter. Any brand of high-efficiency HEPA, P100 or P3 filter canister can be used as long as it has a standard 40-mm thread.

Combination cartridges are not recommended because they sometimes shed carbon particles that will be interpreted as face seal leakage by the PORTACOUNT® fit tester.

9. Attach the clear PORTACOUNT® mask sample tube to the fitting on the side of the fit test adapter. You are now ready to proceed with the fit test.

PRECAUTIONS

- Make certain that a tube is used inside the mask. This ensures that air is sampled from the breathing zone near the nose and mouth.

  If there is no tube used to draw air from the breathing zone, only clean filtered air will be sampled and all fit tests will result in extremely high (over 100,000) fit factor values. These fit factors will not be correct.

- Make certain that the flexible tube inside the mask is not blocked, twisted or pinched.

  A blocked tube will result in high fit factors that are not correct.

- Make certain that the filter canister is a high efficiency type filter (HEPA, P100, P3, etc.).

  Using the wrong type of filter will result in very low fit factors because ambient air particles can pass through it.

  Combination HEPA/Gas filters are not recommended because they sometimes shed carbon particles. This will result in low fit factors because the shed particles will be interpreted as face seal leakage by the PORTACOUNT® fit tester.

- The flexible tubing used inside the mask should be 1/8 inch (3 mm) inside diameter × 3/16 inch (4.5 mm) outside diameter PVC tubing. Do ***not*** use Teflon or silicone tubing because particles do not pass through them properly due to static charge issues.

- To test the fit test adapter, create a large leak by placing an object like a pencil in between the test subject's face and the mask. The resulting fit factor should be very low.