



**TRI AIR TESTING, Inc.**  
 1607 N. CUERNAVACA DRIVE STE. 500  
 AUSTIN, TX 78733-1600  
 (800) 880-8378



## NFPA 1989 AIR SAMPLING INSTRUCTIONS

# 1

If a moisture sample is to be obtained go to moisture sampling instructions and perform the test before continuing with the air sampling instructions. Start the compressor and allow it to run with air flowing from the sampling point for at least 5 minutes before sampling. While the compressor is running remove the data sheet from the kit and complete steps 2 and 3 of these instructions.



Filter Union

# 2

Record the filter number on the data sheet under "Oil Mist/Particulate Sample Data." The filter number can be seen by removing the orange cap plugs on both ends of the filter union. Locate the number etched on the metal screen beneath the larger orange cap plug. **DO NOT UNSCREW THE FILTER UNION.**



Flow Section opened to show orifice plate

# 3

Record the orifice plate size on the data sheet under "Oil Mist/Particulate Sample Data." To find the orifice plate look down the open end of the flow section. It's size is etched on the plate and color coded, see chart below. To change the orifice plate, open the flow section as pictured to the left. The orifice plate size to be used is determined by your air system's operating flow rate in standard cubic feet/minute (scfm) at the actual sampling point.

SCFM	Orifice Size and Color	
Between 1-2	.078	Black
Between 2-6	.115	Blue
Between 6-22	.200	Red



Input Fitting



Input Fitting connected to Filter Union



Input Fitting connected to Filter Union connected to the Flow Section

# 4

Using one of the TRI supplied input fittings, connect the input fitting to the filter union (not all input fittings available are pictured). Connect the open end of the filter union to the flow section. Connect the complete unit to your air source. Open the charging lead or air source valve SLOWLY and allow the pressure on the flow section gauge to stabilize. Run the sample according to the time specified in the table to the right. Turn the page and complete step 5 during this run time.

Select Orifice to use based on your compressor output.

Pressure Range	1-2 SCFM .078 orifice Minutes	2-6 SCFM .115 orifice Minutes	6-22 SCFM .200 orifice Minutes
4-6 psi	40	19	6
6-10 psi	31	15	5
10-16 psi	22	11	4
16-22 psi	16	8	3
22-30 psi	12	6	2



Air Sample Bottle



Complete Unit with Sample Bottle

**5**

As step 4 is running, choose and record a sample bottle on the data sheet under "Breathing Air Sample". Remove the **black** shipping cap and replace it with the **white** sampling cap. Insert the bottle into the fitting containing the needles just above the pressure gauge, by pressing straight down onto the needles. **DO NOT TWIST** the bottle, as the needles will be damaged.

The air sample bottle must run at least one (1) minute. The air sample will be taken during a portion of the time step 4 is running. Be sure to check that the white plastic float inside the sample bottle has risen away from the needled fitting. (If the float does not rise and stays by the needles there may be a clog in the needled fitting). Call TRI at (800) 880-8378 if you have any problems. Remove the sample bottle (**DO NOT TWIST**) and replace the **white** sampling cap with the **black** shipping cap.

**TIGHTEN BLACK CAP SECURELY TO PREVENT LOSS OF GAS SAMPLE.**

**6**

While you are sampling, be aware of any pronounced or unusual odor coming from the noise muffler of the flow section. Record your observation on your data sheet.

**Call Federal Express  
or UPS for pickup**



**7**

You have just completed the basic sampling procedure. If you are not doing any additional sampling, turn off your compressor and disassemble the sampling equipment. Return each part to the black kit, making sure that the orange cap plugs are replaced on the filter union and the sample bottles are capped with the **black** shipping caps. (If the white caps are left on the sample bottles, the samples **will not** be analyzed). Check that the data sheet has been correctly and completely filled out.

Place all paperwork (except the return shipping tag) behind the foam lid of the kit. Complete the "sender" part of the return shipping tag. Place the return shipping tag in the pouch and stick the pouch to the outside of the kit. Call Federal Express at (800) 238-5355 or UPS at (800) 742-5877 to request a pick-up of the kit.

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