



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



IS40C

**THE CHAMPION 35**  
**AIR SAMPLING INSTRUCTIONS**  
**(SAMPLING OUTSIDE OF FILL STATION CONTAINMENT)**

**1**

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 complete steps 2 and 3 of these instructions.



Filter Cup and Filter

**2**

Record the filter number. (Remove a filter assembly from red filter cup and carefully locate the number on the screen. The number is found on the side of the filter assembly opposite of the white filter pad.) Record this information on the data sheet under "Oil Mist/Particulate Sample Data." Do not touch the filter pad. Handle the filter assembly by the sides.

**3**

Record the orifice plate size on the data sheet under "Oil Mist/Particulate Sample Data." To install or check the size of the installed orifice plate, unscrew the multi-holed noise muffler. The orifice plate is the aluminum disk with a hole in it. The size is imprinted on it. Proper size is determined by your air system's operating flow rate in standard cubic feet/minute (scfm) at the sampling point. (see table below). When changing the orifice plate make sure the beveled side is facing toward the muffler.

Use this chart to select the orifice plate to use based on your compressor output.

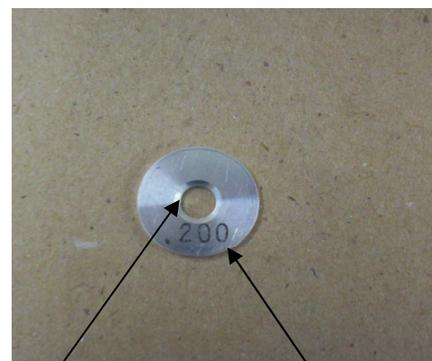
Pressure on TRI gauge	1-2 SCFM use .078 orifice	2-6 SCFM use .115 orifice	6-22 SCFM use .200 orifice	23-35 SCFM use .300 orifice
5 psi	40 Minutes	19 Minutes	12 Minutes	12 Minutes



Location of Orifice Plate



Orifice Plate with Noise Muffler Removed



Beveled Side Orifice Plate Size



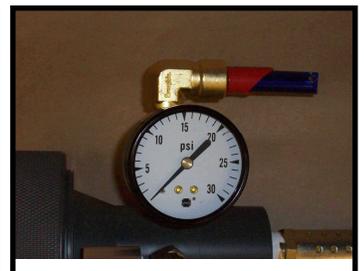
Input Fitting



Both Halves of PVC  
PVC Filter Holder  
Before Final Assembly



Completed Assembly



Whistle Hole Covered

**4**

Assemble the sampling equipment as follows: Screw the input fitting into the cone shaped half of the PVC filter holder. Place one filter assembly into the other half of the PVC filter holder (white filter pad facing out, see picture). Assemble the two halves of the PVC filter holder. Make sure all equipment is securely tightened. Rotate the air transfer fitting (double needed fitting) 90 degrees clockwise, if it's not already in this position. Make sure all equipment is securely tightened. Slide the black whistle cover over the hole at the base of the whistle to block the hole. This will stop the whistle sound and allow the TRI gauge to read correctly during your sampling.



Moisture Tube

**5**

Connect the complete unit to your air source. Locate the moisture tube and remove the red end caps. Locate the glass air sample bottle and **white** sampling cap. Remove the **black** shipping cap and replace it with the **white** sampling cap. Record the bottle number on the data sheet under "Breathing Air Sample".

Open the charging lead or air source valve **SLOWLY** and adjust the pressure on the flow section gauge to 5 psi. Without delay, carefully break the glass tip off the end marked "Insert Other End" by inserting it into the hole on the **side** of the tube fitting and gently applying sideways pressure. Then, break the other tip off using the same procedure. **Caution: Wear eye protection to avoid injury from flying glass.**

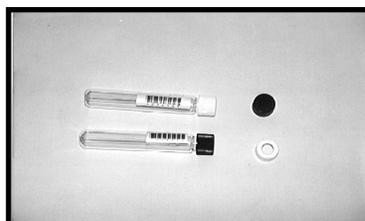
Without delay, insert the proper end of the moisture tube into the tube fitting, past the o-ring, until it bottoms out. **Caution: Use layers of paper or cloth around the tube to protect your hands in case of tube breakage.**

**The moisture tube must run for exactly 12 minutes at 5 psi and no longer.**

**If you are using the .078 or .115 orifice plates you will remove the moisture tube at 12 minutes, but continue running the filter test for the assigned length of time.**



Complete Assembly with  
Moisture Tube Attached



Air Sample Bottle

**6**

As step 5 is running, Insert the bottle into the fitting containing the needles, by pressing straight down onto the needles. **DO NOT TWIST** the bottle, the needles will be damaged.

The air sample bottle must run at least one (1) minute but can be left in place for the duration of the 12 minute test. The air sample will be taken during a portion of the time step 5 is running. Be sure to check that the white Teflon 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.



Complete Assembly with  
Sample Bottle

**7**

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

**8**

Once the sampling has been completed, slowly reduce the pressure to zero. Immediately remove the bottle (if you have not already done so) and moisture tube from their fittings.

Record the length of reddish-brown color change from the moisture tube onto the data sheet, or check (✓) beneath the drawing in the space provided, if no stain occurred. Replace the red caps on both ends of the moisture tube and return the tube to the foam holder.

Replace the **white** sampling cap on the sample bottle with a **black** sealing cap. (If white cap is left on the sample bottle, the sample will not be analyzed). Place the bottle and moisture tube in the protective foam.

**9**

You have just completed the basic sampling procedure. If you are not doing any additional sampling, disassemble the sampling equipment\*. Return each part to your kit.

Check that the data sheets have been correctly and completely filled out. Place the filter into the red cup. Place the red cup containing the filter, the bottle (in the protective foam), the moisture tube (in the protective foam), and your datasheet into the padded envelope or your shipping box.

Return the sample to TRI for analysis. If you are using a return shipping tag place it on the package. If for any reason you damage a filter or break a bottle, please return this media to TRI for a replacement. This will help us keep your inventory current.

\* If you are sampling additional locations, the condensation present in the sampling equipment must be allowed to dry before using the equipment on another location.

**TRI AIR TESTING, Inc.**

1607 N. CUERNAVACA DR. STE. 500

AUSTIN, TX 78733-1600

(800) 880-8378

Fax (512) 263-7039

**[www.airtesting.com](http://www.airtesting.com)**