



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



IS29C

**Champion 35 Test Kit**  
**Air Sampling Instructions**  
 (Cylinder Quick Connect Version)

**1** If a moisture sample is to be obtained, go to moisture sampling instructions and perform the test before continuing with this air sampling instruction. Remove the data sheet from the kit and complete steps 2 and 3 of these instructions.



Filter Case and Filter

**2**

Record the filter number. (Remove a filter assembly from red filter case 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 chart below)

Air Capacity	Orifice Plate Size	Optimum Sampling Time
<2 scfm	.078	20 min @ 9-12 psig
2-6 scfm	.115	10 min @ 9-12 psig
6-15 scfm	.200	4 min @ 9-12 psig
12-35 scfm	.300	2 min @ 9-12 psig



Input Fitting



Both Halves of PVC Filter Holder Before Final Assembly



Completed Assembly

**4**

Assemble the sampling equipment as follows: Screw the input fitting into the short 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. **DO NOT INSERT A SAMPLING CYLINDER YET.**



## The Champion 35 Air Sampling Instructions (Cylinder Quick Connect Version) (Continued)

# 5

Connect the complete unit to your gas source. Open the gas source valve SLOWLY and allow the pressure on the flow section gauge to stabilize in the specified psi range. Run the sample according to the time specified in the table in step 3. If you are unable to obtain the optimum psi change the size of the orifice plate. Remember to record the size used during testing. Complete step 6 during this run time.



Gas Sample Cylinder

# 6

Choose and record a sample cylinder. Only one sample per location is required with the metal cylinders. Record the cylinder barcode number (KA..., or KT ...) on the data sheet under "Gas Sample Data." Insert the cylinder onto the quick connect fitting just above the pressure gauge by pressing the cylinder straight down onto the fitting while supporting the flow section with your other hand. Remove the knurled nut from the sample cylinder. Gas should flow through the sample cylinder for at least 30 seconds.

Note: The pressure gauge reading will drop during this sampling. DO NOT adjust the pressure on your system while the cylinder is in place. Replace the knurled nut after thirty seconds. Note: The knurled nut should be replaced tightly, but finger tighten only. Use NO TOOLS. Over tightening will destroy the sample. While the gas is still flowing from your source, remove the sampling cylinder by pressing down on the quick connect fitting.

**Do not turn off the gas source until the knurled nut is in place and the sample cylinder has been removed from the sample equipment.** Call TRI at (800) 880-8378 ask for Compressed Air customer service if you have any problems or questions.



Complete Assembly with  
Sample Cylinder

# 7

You have just completed the basic sampling procedure. If you are not doing any additional sampling turn off the gas source valve and disassemble the sampling equipment. Return each part to your kit. Place the filter into the red case. Check that the data sheets have been correctly and completely filled out. Place the filter(s), cylinders(s), and datasheets in a padded package and return to TRI for analysis.

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