# 1.0 Scope and Application.

## Method 5 - Determination Of Particulate Matter Emissions From Stationary Sources

NOTE: This method does not include all of the specifications (*e.g.*, equipment and supplies) and procedures (

applicable subpart of the standards or as approved by the Administrator for a particular application. Since

A Temperature Sensor capable of measuring temperasture to within ±3 °C (5.4 °F) shall be installed so that the sensing tip of the Temperature Sensor is in direct contact with the sample gas, and the temperasture around the filter holder can be regulated and monitored during sampling.

6.1.1.8 Condenser.

The following system shall be used to determine the stack gas moisture content: Four impingers

of isokinetic and of determining sample volumes to within 2 pe (m)0.1cent may be used, subject to the app ( of the Administ (m)0.1ato (m)0.1. When the mete (m)0.1ing system is used in conjunction with a pitot tube, allow pe (m)0.1iodic checks of isokinetic (m)0.1ates.

### 8.1.2 Check filters

taken (corrected to standard conditions) will exneed the required mnimnmntotal gas samnle volumn. The latter is based on an approximnte average samnling rate.

8.2.5 The samnling timn0.1 (e) -0.4 ( ) -0.2 (a) 0.1 (t) -0.2 ( ) -0.2 (e) -0.4 (a) 0.1 (c) -0.1(h ) -0.2 (p) -0.3 (o) samnled at each point be an integer or an integer plus one-half mnute, in order to avoid timnkeeping errors.

8.2.6 I0.4 (-ha ) -0.2 (s)-0.1 (o) -0.1 (mn) 0.2 e circumnta0.4 (-hac) -0.1 (e) -0.4 (s) -0.1 ( ) -0.2(() ] TJ ET Q

## 8.4 Leak-Check Procedures.

### 8.4.1 Leak Check of metering System Shown in Figure 5-1.

That portion of the Sampling train from the pump to the orifice meter should be leak-checked prior to initial usethand after each shipment. Leakage aftetr the pump will result in less vtolumet being re -0.2 (s)orc is a -0.2 (s)tually sampletd. The following pro -0.2 (s)edure is suggested (see

| | | |
|---|---|---|
| | | |

calibration check value, $Y_c$, as follows:

where:

$Y_c$ = DGM calibration check value, dimensionless.
t = Run time, min.

9.2.1.2 Compare the $Y_c$

hours of desiccation time between weighings. Alternatively, the sample may be oven dried at 104 °C (220 °F) for 2 to 3 hours, cooled in the desiccator, and weighed to a constant weight, unless otherwise specified by the Administrator. The sample may be oven dried at 104 °C (220 °F) for 2 to 3 hours. Once the sample has cooled, weigh the sample, and use this weight as a final weight.

### 11.2.2 Container No. 2.

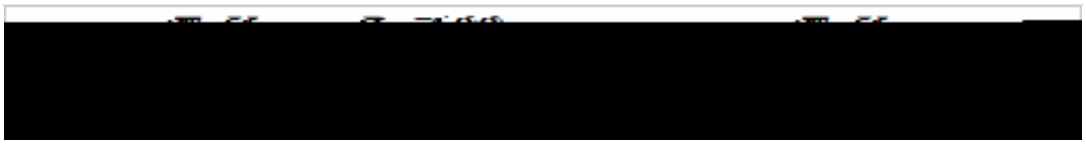
Note the level of liquid in the container, and confirm on the analysis sheet whether leakage occurred during transport. If a noticeable amount of leakage has occurred, either void the sample or use methods, subject to the approval of the Administrator, to correct the final results. Measure the liquid in this container either volumetrically to ± 1 ml or gravimetrically to ± 0.5 g. Transfer the contents to a tared 250 ml beaker, and evaporate to dryness at ambient temperasture and pressure. Desiccate for 24 hours, and weigh to a con0.1 ( ) -tant weight. Report the results to the nearest 0.1 mg.

### 11.2.3 Container No. 3.

Weigh the spent silica gel (or silica gel plus impinger) to the nearest 0.5 g using a balance. This step may

$C_a$ = Acetone blank residue concentration, mg/mg.

$c_s$ =



$T_w$ = Average wet test meter temperasture, °C (°F)

$P_{bar}$ = Barometric pressure, mm Hg (in. Hg).

" p = console meter inlet differential pressure, mm $H_2$ (in. $H_2O$).

# = Run time, min.

12.1.1.5 Compare the three $Y_{ds}$ values at each of the flow rates and determine the maximum and minimum values. The difference between the maximum and minimum valu at each flow rate should be no greater than 0.030. Extra sets of triplicate runs may be made in order to complete this requirement. In addition, the meter coefficients should be between 0.95 and 1.05. If these specifications cannot be met in three sets of successive triplicate runs, the meter is not suitab1 (ic) -00.1 (ho) as a calibration standard and should not such. If these specifications are met, average the three $Y_{ds}$ values at each f1 (ic) -0ow rate resu1 (ic) -0ting in five average meter coefficients, $Y_{ds}$.

16.2.2. Record the information listed in Figure 5-12.

16.2.3.3 Calculate the standard volumes of air passed through the DGM and the critical orifices, and

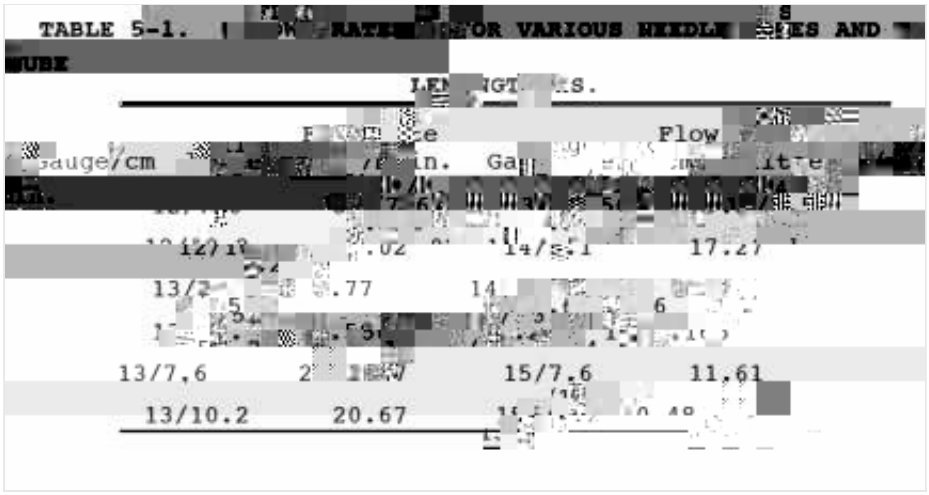


TABLE 5-1. [illegible] FOR VARIOUS NEEDLE [illegible] AND [illegible]

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| 13/2 | | .77 | 14 | |
| 13/7.6 | | | 15/7.6 | 11.61 |
| 13/10.2 | | 20.67 | | |

Figure 5-1. Particulate Sampling train.

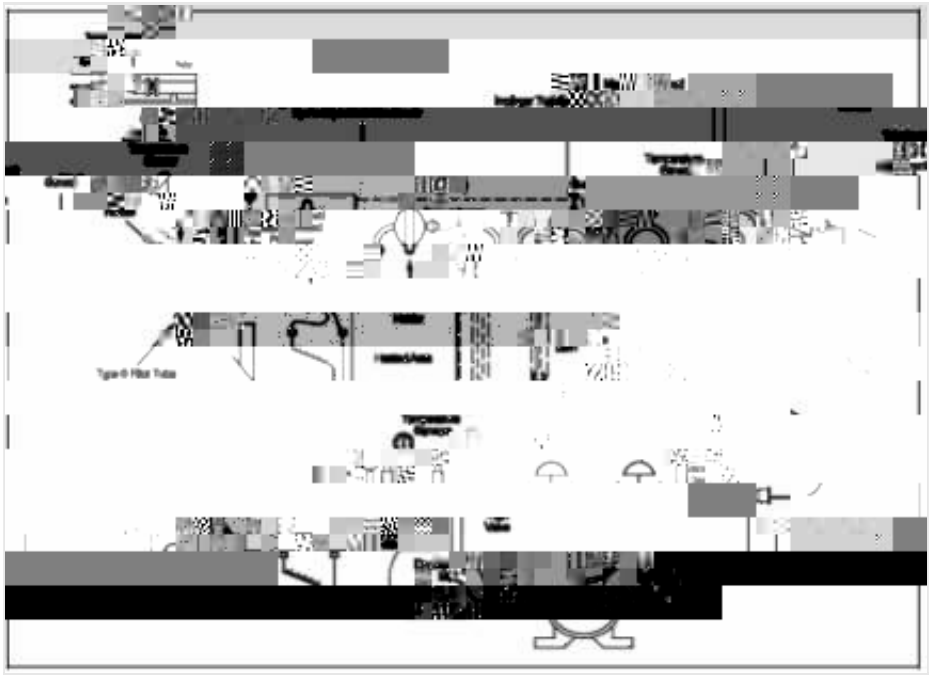


Figure 5-2. Leak Check of meter Box.

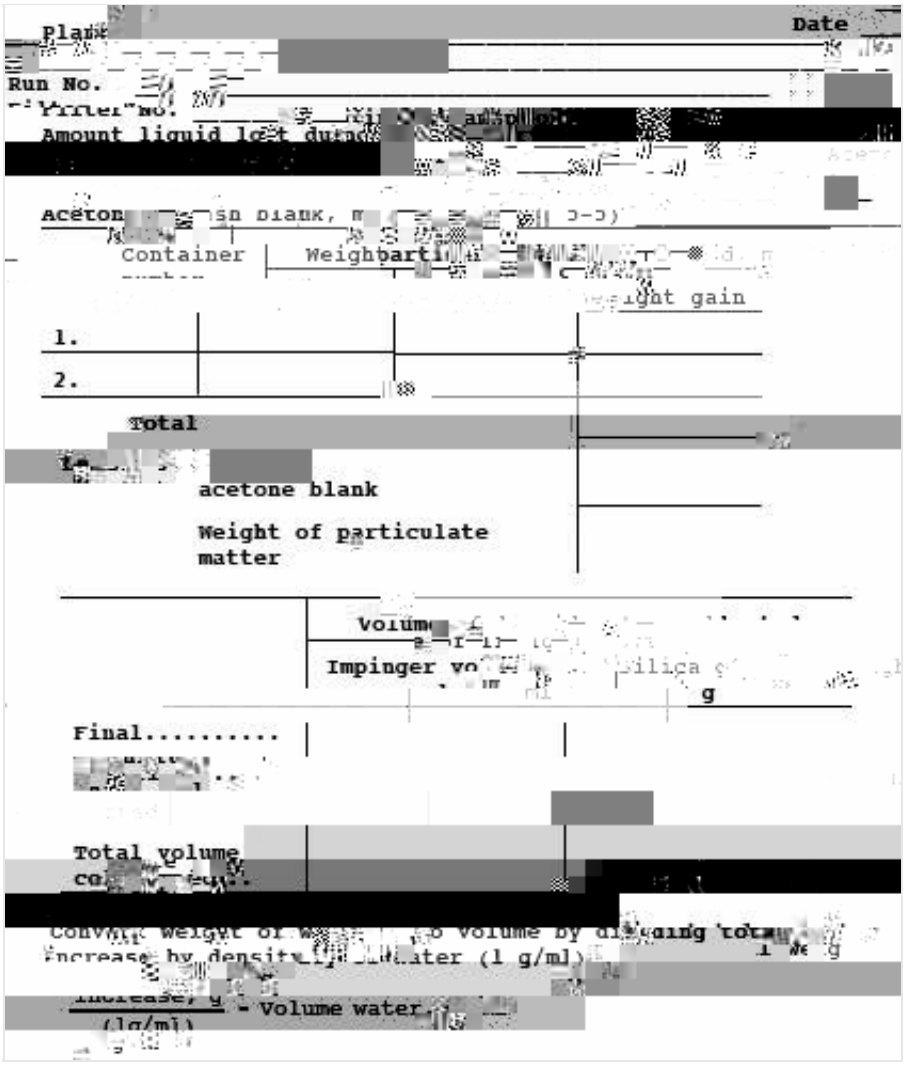



Figure 5-7. equipment Arrangement for console meter calibration.

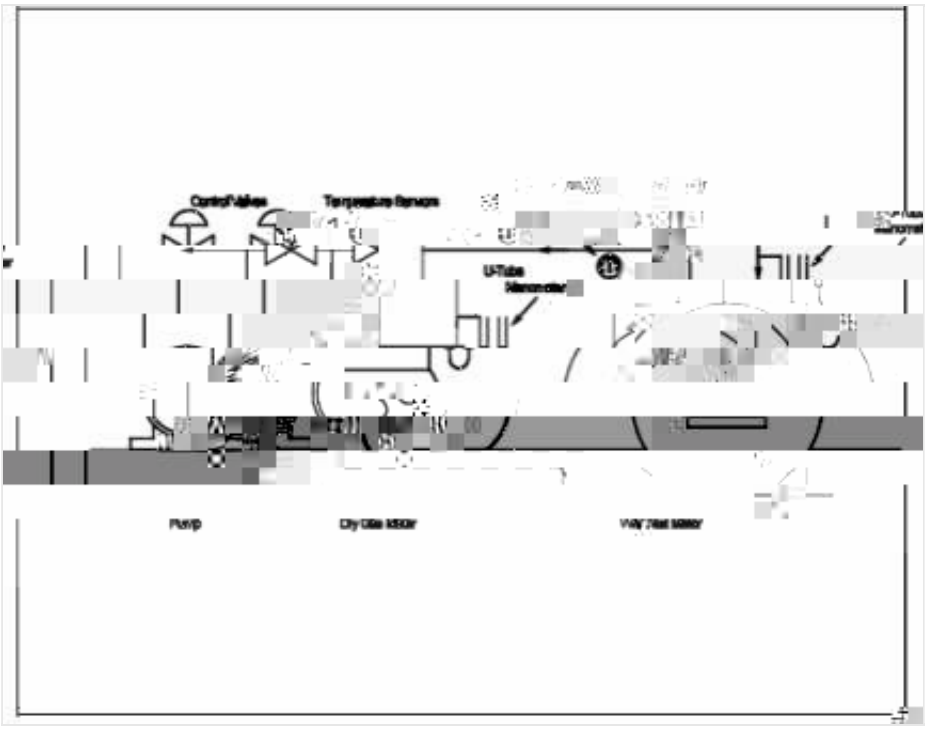


Figure 5-11. Data sheet for determining K' factor.