TRACE Analytics LLC

AIRCHECK KIT™

K810 INSTRUCTIONS

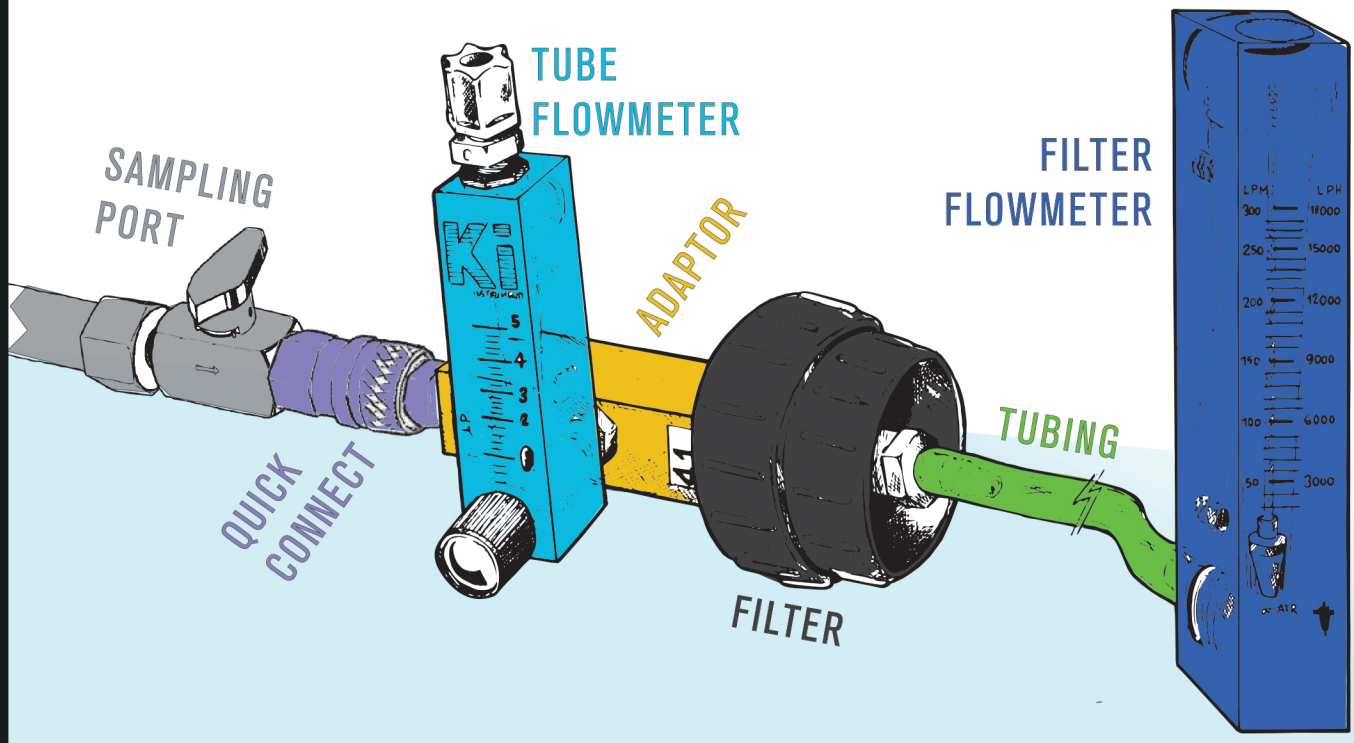
PARTICLES, WATER, OIL TESTING

BEFORE YOU BEGIN

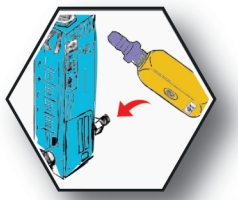
START HERE VIDEO https://bit.ly/2rIn4at

1. Set up sampling port with control valve to easily adjust airflow.
2. Determine pressure at sampling point to select correct adaptor: UNR NPT (20-50 psi) or 41 NPT (51-125 psi).
3. Purge sampling port for at least **10 minutes** before attaching equipment.
4. Attach quick connect coupler to sampling port (if provided).
5. For multiple sampling points, clean NPT adaptors and fittings between samples.
6. Scan QR code above to view short, easy-to-follow video instructions for preparation, step by step directions, and cleaning procedures.

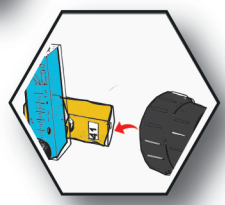
KIT ASSEMBLY



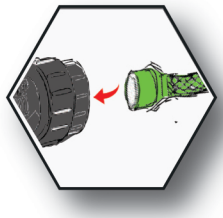
ASSEMBLY INSTRUCTIONS



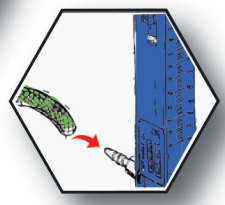
1. Attach ADAPTOR to TUBE FLOWMETER



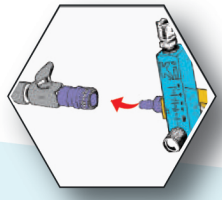
2. Connect FILTER to ADAPTOR
   on the labeled side



3. Connect TUBING to FILTER
   on the side labeled “flowmeter”



4. Attach FILTER FLOWMETER to TUBING



5. Connect assembled kit to SAMPLING PORT

1 PARTICLES & OIL AEROSOL

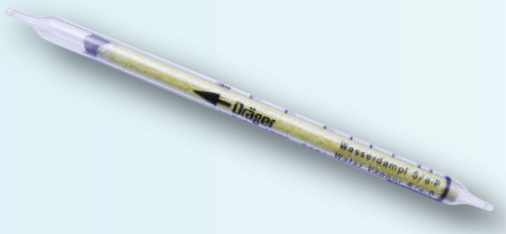
1. Determine your runtime using Sampling Guidelines table below. *If sampling for oil aerosol only, see FAQs for sampling parameters.*
2. Set timer 1 for runtime.
3. Begin airflow. If unable to achieve recommended flowrate, use equation in table below to determine new sampling time.
4. Record test information on Data Sheet, Section 5A.
5. Proceed to next step. **Filter remains in place until all steps are completed.** Record total test time on data sheet.

PARTICLE & OIL AEROSOL SAMPLING GUIDELINES				
Sample Type	**ISO 8573 Purity Class**	**Min. Air Volume**	**Minutes**	**LPM**
BASELINE, PRO, DIAG.	CLASS 1	12,000	120	100
BASELINE, PRO, DIAG.	CLASS 2	1,200	24	50
VALUE	CLASS 3-5	500	10	50
BASIC	CLASS 6-7	250	5	50

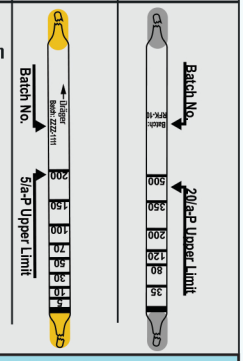
Filter must be returned for analysis. Return all void or unused filter holders. DO NOT THROW AWAY.

$$\frac{\text{Air Volume, Liters}}{\text{Flowrate, L/min (LPM)}} = \text{Sampling Time, Min}$$

2 WATER VAPOR



1. Determine appropriate detector tube and runtime according to table. Set timer 2.
2. Open tube flowmeter control valve and purge flowmeter for 30 seconds. Close valve.
3. Remove protective caps. Use tip breaker to safely break **both** tips. Immediately insert detector tube into black tube fitting on small flowmeter. The arrow must point up. Tighten tube fitting and cover with netting.
4. Open tube flowmeter control valve to 4 LPM and start timer 2.
5. Watch tube for duration of sampling time. If reddish-brown stain reaches upper limit mark before sampling time is complete, close flowmeter control valve, remove tube and replace caps and netting. Write exact time stain reached upper limit on the data sheet. If this occurred with the 5a/-P detector tube, repeat test with 20a/-P detector tube.
6. When runtime is complete, close flowmeter control valve clockwise. Immediately remove tube, determine numerical value for length of stain, record test information on Data Sheet, Section 5B.

WATER VAPOR SAMPLING GUIDELINES		
	5/a-P tube	**20/a-P tube**
Purity Class	CLASS 2, 3*	CLASS 4, 5, 6
Dryer Type	Desiccant Dryer	Refrigerated Dryer
Air Volume	50	20
Runtime	12.5 min	5 min
LPM	4	4
Scale	5 - 200	35 - 500
Tube Description		

*See FAQs for Purity Class 1

3 OIL VAPOR

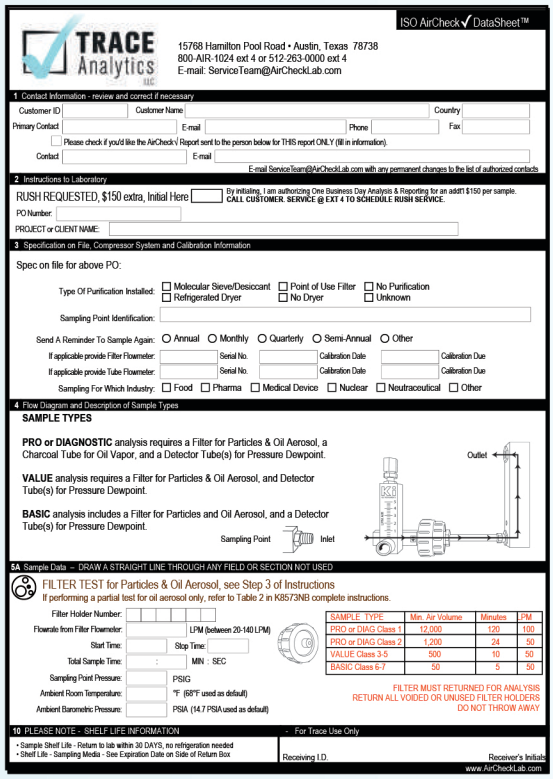
1. Determine your runtime using table below and set timer 3.
2. Purge flowmeter for 30 seconds. Close control valve, then attach white tube fitting to top of 4" tube flowmeter.
3. Remove protective caps from black charcoal tube. Use tip breaker to safely break **both** tips.
4. Immediately insert tube into tube fitting with arrow pointing up. Tighten tube fitting and reapply netting.
5. Open black flowmeter valve to 4 LPM and run sample as per table.
6. When runtime is complete, close flowmeter control valve clockwise. Immediately remove tube and recap. Record test information on Data Sheet, Section 5C.
7. Break tips from BLANK charcoal tube. Expose to ambient air for 30 seconds. Recap, record blank tube number on all Data Sheets with same daily batch in Section 6 and return to designated box. Do not expose blank to any compressed air.

OIL VAPOR SAMPLING GUIDELINES				
Sample Type	**ISO 8573 Purity Class**	**Min. Air Volume**	**Minutes**	**LPM**
BASELINE, PRO, DIAG.	CLASS 1	400	100	4
BASELINE, PRO, DIAG.	CLASS 2	40	10	4
OTHER	CLASS 3-4	40	10	4

⚠ *Oil vapor tests not required for BASIC, VALUE or CLASS 3-4 sample types.*

4 FINAL STEP

1. When runtime is complete for all steps, shut off air at point of use. Stop timer 1, record total time for filter test on Data Sheet, Section A.
2. Remove quick connect coupler (if provided) from sampling port, disassemble kit, recap 47mm blue filter.
3. Replace caps and netting. Return filter, detector tube(s), charcoal tubes and completed data sheet to pre-addressed return box. Make sure Data Sheet is complete and legible.



ISO AirCheck✓DataSheet™

TRACE Analytics LLC
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800-AIR-1024 ext 4 or 512-263-0000 ext 4
E-mail: ServiceTeam@AirCheckLab.com

1 Contact Information - review and correct if necessary

Customer ID | Customer Name | Country
Primary Contact | E-mail | Phone | Fax
☐ Please check if you'd like the AirCheck✓ Report sent to the person below for THIS report ONLY (fill in information).
Contact | E-mail
E-mail ServiceTeam@AirCheckLab.com with any permanent changes to the list of authorized contacts

2 Instructions to Laboratory

RUSH REQUESTED, $150 extra, Initial Here ☐ By initialing, I am authorizing One Business Day Analysis & Reporting for an addt'l $150 per sample. CALL CUSTOMER. SERVICE @ EXT 4 TO SCHEDULE RUSH SERVICE.
PO Number:
PROJECT or CLIENT NAME:

3 Specification on File, Compressor System and Calibration Information

Spec on file for above PO:
Type Of Purification Installed: ☐ Molecular Sieve/Desiccant ☐ Point of Use Filter ☐ No Purification ☐ Refrigerated Dryer ☐ No Dryer ☐ Unknown
Sampling Point Identification:
Send A Reminder To Sample Again: ○ Annual ○ Monthly ○ Quarterly ○ Semi-Annual ○ Other
If applicable provide Filter Flowmeter: Serial No. Calibration Date Calibration Due
If applicable provide Tube Flowmeter: Serial No. Calibration Date Calibration Due
Sampling For Which Industry: ☐ Food ☐ Pharma ☐ Medical Device ☐ Nuclear ☐ Neutraceutical ☐ Other

4 Flow Diagram and Description of Sample Types

SAMPLE TYPES

PRO or DIAGNOSTIC analysis requires a Filter for Particles & Oil Aerosol, a Charcoal Tube for Oil Vapor, and a Detector Tube(s) for Pressure Dewpoint.

VALUE analysis requires a Filter for Particles & Oil Aerosol, and Detector Tube(s) for Pressure Dewpoint.

BASIC analysis includes a Filter for Particles and Oil Aerosol, and a Detector Tube(s) for Pressure Dewpoint.

Outlet
Sampling Point
Inlet

5A Sample Data – DRAW A STRAIGHT LINE THROUGH ANY FIELD OR SECTION NOT USED

FILTER TEST for Particles & Oil Aerosol, see Step 3 of Instructions
If performing a partial test for oil aerosol only, refer to Table 2 in K8573NB complete instructions.

Filter Holder Number:
Flowrate from Filter Flowmeter: LPM (between 20-140 LPM)
Start Time: Stop Time:
Total Sample Time: : MIN : SEC
Sampling Point Pressure: PSIG
Ambient Room Temperature: °F (68°F used as default)
Ambient Barometric Pressure: PSIA (14.7 PSIA used as default)

SAMPLE TYPE	Min. Air Volume	Minutes	LPM
PRO or DIAG Class 1	12,000	120	100
PRO or DIAG Class 2	1,200	24	50
VALUE Class 3-5	500	10	50
BASIC Class 6-7	50	5	50

FILTER MUST RETURNED FOR ANALYSIS
RETURN ALL VOIDED OR UNUSED FILTER HOLDERS
DO NOT THROW AWAY

10 PLEASE NOTE - SHELF LIFE INFORMATION - For Trace Use Only

• Sample Shelf Life - Return to lab within 30 DAYS, no refrigeration needed
• Shelf Life - Sampling Media - See Expiration Date on Side of Return Box

Receiving I.D. Receiver's Initials
www.AirCheckLab.com