

**DOWNSTREAM SAMPLE TEST KIT INSTALLATION**

1. Downstream Test Kit Contents.
1. (1) ea. DynAir instruments test port model PTP-1. The port includes a sponge neoprene gasket to seal to customer duct and a red molded high density plug, fitted with a neoprene o-ring.
  2. (1) ea. TyLok male elbow SST fitting SS-4-2ME-8 with downstream sample probe.
  3. (1) ea. Tylok male connector SST fitting SS-4-1MC-6.
  4. (25) ft. 1/4" OD Vinyl tubing.
  5. (2) ea. Hex head tek screw #10x3/4" long.
  6. (1) copy of this drawing.

2. Test Port Installation. (See Detail "A")
- 2.1 Find the proper location for the test port. The port should be located at least 10 duct diameters (or two 90° bends) downstream of the filter. Do not locate the port in the main ductwork (see Pharmatain and Pharmaseal details).
  - 2.2 Place test port in desired location on ductwork. Mark location of access hole and the mounting holes. Drill the access hole 3/4" diameter max. Drill the two (2) mounting holes using a #30 drill bit.
  - 2.3 Caulk the under side of the assembly between the gasket and the ductwork using customer 100% approved RTV silicone rubber.
  - 2.4 Place test port and flat neoprene mounting gasket over the hole.
  - 2.5 Fasten the test port to the duct using two (2) #10 tek screws. After installation is complete, caulk over the heads of the screws.

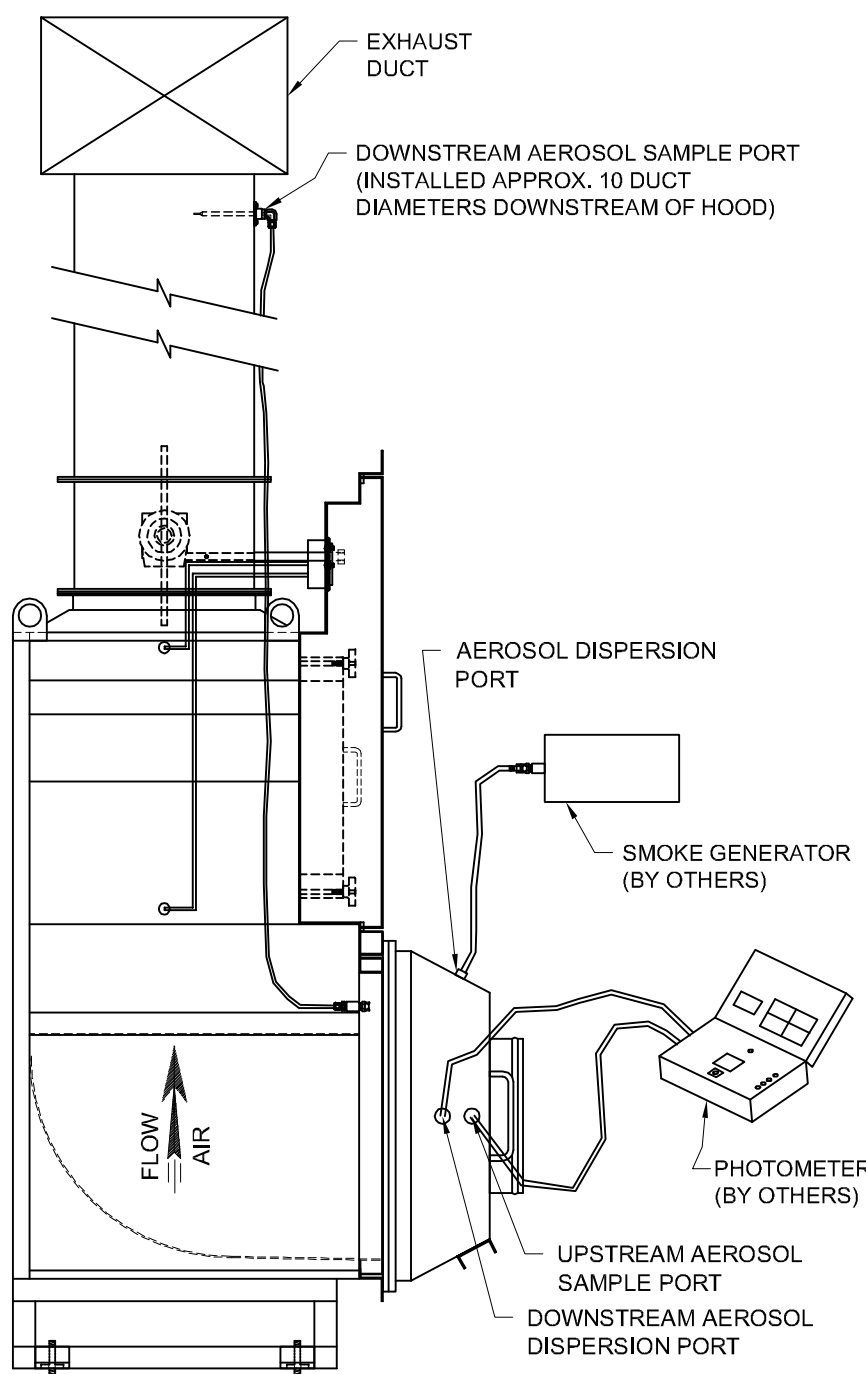
3. Connection Between the Test Port and Exhaust Hood/Housing. (See Detail "A" & "B")
- 3.1 Remove and discard red plug from test port. Replace the red plug with the Tylok SST elbow SS-4-2ME-8 with downstream sample probe.
  - 3.2 Remove and discard 3/8" brass plug from the 3/8" coupling located on top of the exhaust Pharmaseal Hood/Housing. Replace the plug with the Tylok SST male connector S-4-1MC-6.
  - 3.3 Cut the 1/4" OD Vinyl tubing to desire length and connect the two Tylok fittings together. Properly secure the tubing to the ductwork between the fittings.

**Specifications for Pharmaseal Hood (Exhaust) and Test Fixture**

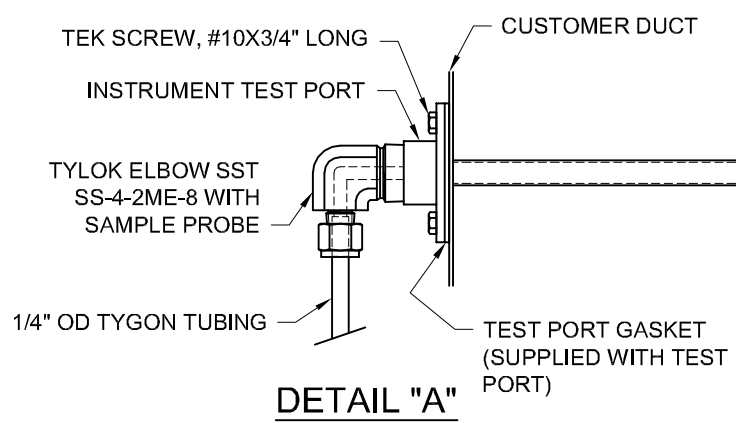
- 4.0 Test Fixture
- 4.1 Test fixture shall be constructed from 0.063" thick aluminum and shall weigh approximately 18 lbs [8.2kg].
  - 4.2 Test fixture shall have a flange around the large end with a soft gasket and fasteners for connection to the hood during testing.
  - 4.3 Test fixture shall have an inlet collar.
  - 4.4 Features of the test fixture shall include an aerosol dispersion system, aerosol upstream sample port, and aerosol downstream sample port. These ports shall include 3/8" NPT chrome-plated brass quick disconnects or 3/8" NPT brass plugs. The aerosol downstream sample port shall have Vinyl tubing that allows connection to the hood before actually attaching the test fixture.

**Testing Steps (Overall Penetration Method)**

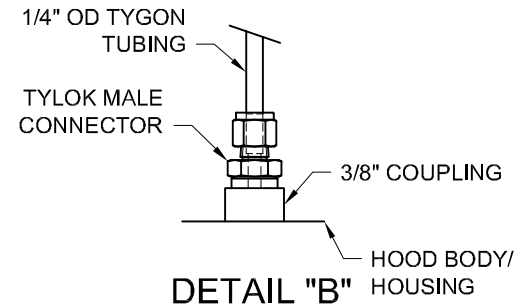
1. Remove grille from Pharmatain/Pharmaseal.
2. Install test fixture to system.  
Note: The flexible hose of the downstream aerosol sample port in the test fixture must be attached to the quick disconnect fitting in the hood just before actually attaching test fixture to hood.
3. Connect photometer to test fixture upstream aerosol sample port and the downstream aerosol sample port.
4. Connect smoke generator to aerosol dispersion port.
5. Conduct test of filter.
6. If result is acceptable, remove test instruments and test fixture.
7. Replace grille on Pharmatain/Pharmaseal.



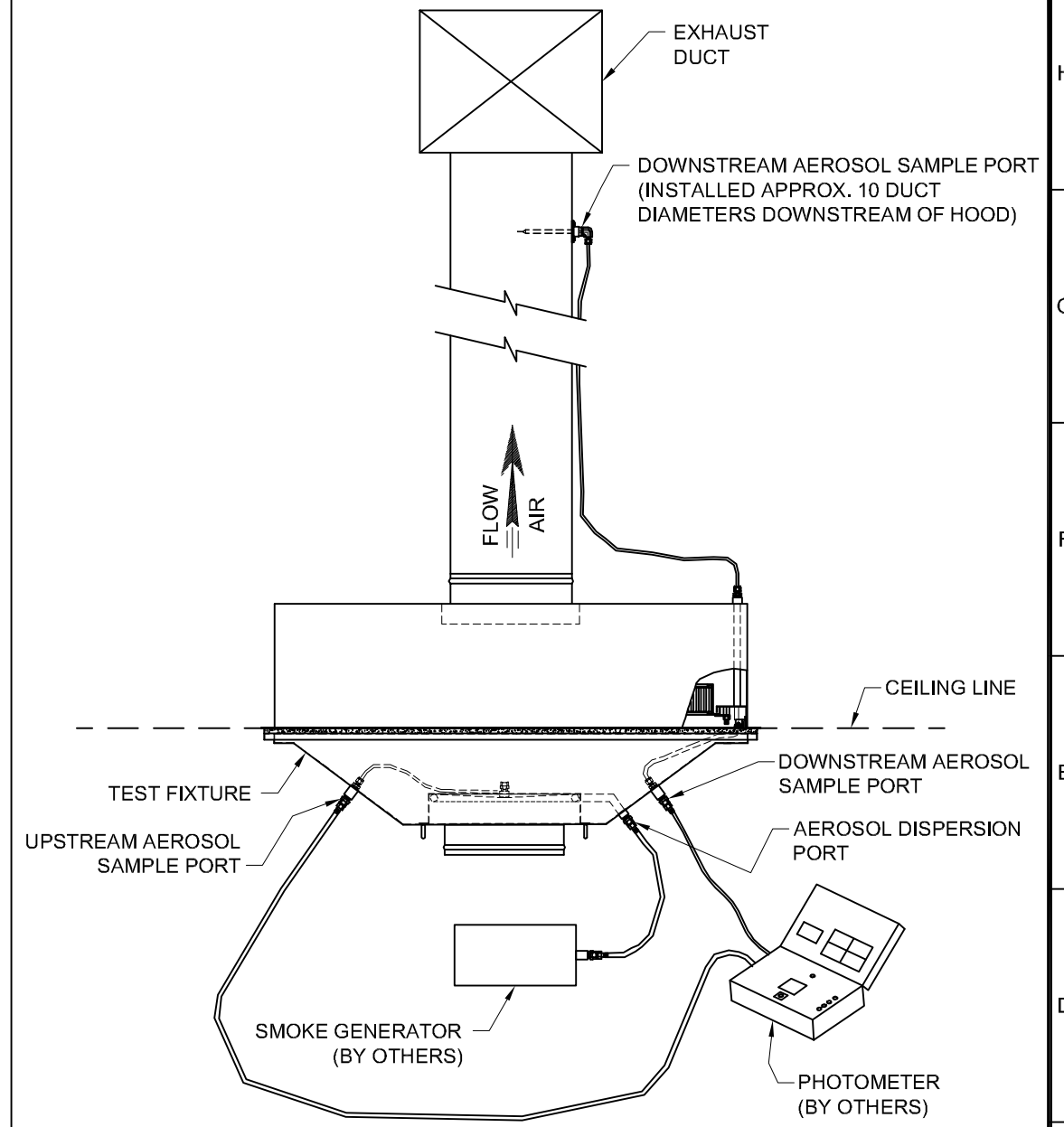
**PHARMATAIN PORTABLE TEST FIXTURE DETAIL**



**DETAIL "A"**



**DETAIL "B"**



**PHARMASEAL HOOD/WALL PORTABLE TEST FIXTURE DETAIL**

**APPROVAL PRINT**

APPROVED       APPROVED AS NOTED  
 REVISE AND RESUBMIT  
 SIGNATURE: \_\_\_\_\_  
 DATE: \_\_\_\_\_

CUSTOMER: \_\_\_\_\_  
 CUSTOMER LOCATION: \_\_\_\_\_  
 CUSTOMER PO NO.: \_\_\_\_\_  
 CAMFIL FARR ORDER NO.: \_\_\_\_\_

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:  
 FRACTION: N/A  
 DECIMAL: N/A



DRAWING TITLE:  
**OVERALL EFFICIENCY TEST KIT INSTALLATION INSTRUCTIONS AND TEST SHROUD DETAILS**

DRAWN BY: S. SMITH      DATE: 8/18/05  
 CHECK BY: J.B.      DATE: 8/18/05  
 APPR. BY: R.B.B.      DATE: 8/18/05

WSS 10/7/08	ADDED PHARMATAIN/PHARMASEAL HOOD DETAILS & TEST INSTRUCTIONS		CHECK BY DATE	APPR. BY DATE
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