Figure 4.81

4.5.4 IN-PLACE TEST AEROSOL TEST

HEPA filter housings must be supplied with test sections on the upstream and downstream sides of the filter bank. Each test section must be isolated from the other to permit individual efficiency testing of each HEPA filter and its supporting framework in parallel and/or in series in compliance with ASME AG-1.[26]

All filter testing must be conducted from a location outside the system using apparatus and devices that are supplied as an integral part of the test sections, including mixing devices and sample ports. The upstream and downstream test chambers contain mixing devices to mix and disperse a uniform challenge air/aerosol ahead of the filter and the effluent from the filter being tested. Challenge aerosol inlet ports and upstream and downstream sample ports must be provided for each HEPA filter. All mixing devices in the air stream must be designed to swing aside when testing has been completed.

The manufacturer must submit evidence that he has proof-tested his in-place test method according to the requirements of ASME AG-1[26] for systems containing two filters in series and two filters in parallel, with one leaking filter in each bank.

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