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Version 1.1

INSTRUCTIONS: *min*PM

(Note: If inlet is used for High Altitude sampling with the PQ167HA the flow rate must be set to 5 Lpm)

1.0 Size selective inlet

The size selective inlet will be familiar to all who have had experience with the Standard EPA Louvered Inlet in its original 16.7 lpm configuration. The only two differences are that it has been scaled down to 1/3 its original dimensions and the acceleration jet in the impactor is changeable over five size ranges. An exploded diagram of the inlet is shown in Figure 9 with all parts identified.

2.0 Jet Differential

If a Size Selective Jet (SSJ) other than PM10 was ordered/furnished with your instrument it was furnished as a separate item. The individual jets are hand detachable and removed/installed by screwing in and out. A light grease should be applied to the threads to prevent seizure. Jets manufactured prior to May, 2005 were not marked. As a guide to their functional size refer to the table of approximate internal dimensions below. Later jets were color coded and their functional size can also be found in the following table.

Function	P/N	I.D. (In.)	I.D. (mm)	Color
TSP	2599	0.38	9.6	Clear
PM 10	2616	0.26	6.6	Blue
PM 4.0	2741	0.14	3.6	Green
PM 2.5	2617	0.11	2.8	Red
PM 1.0	2618	2 holes	2 holes	Black

3.0 Maintenance

Items which require cleaning and maintenance are common to all ambient air sampling devices fitted with size selective inlets. The inlet and the sampler may be considered two separate items for cleaning and maintenance purposes.

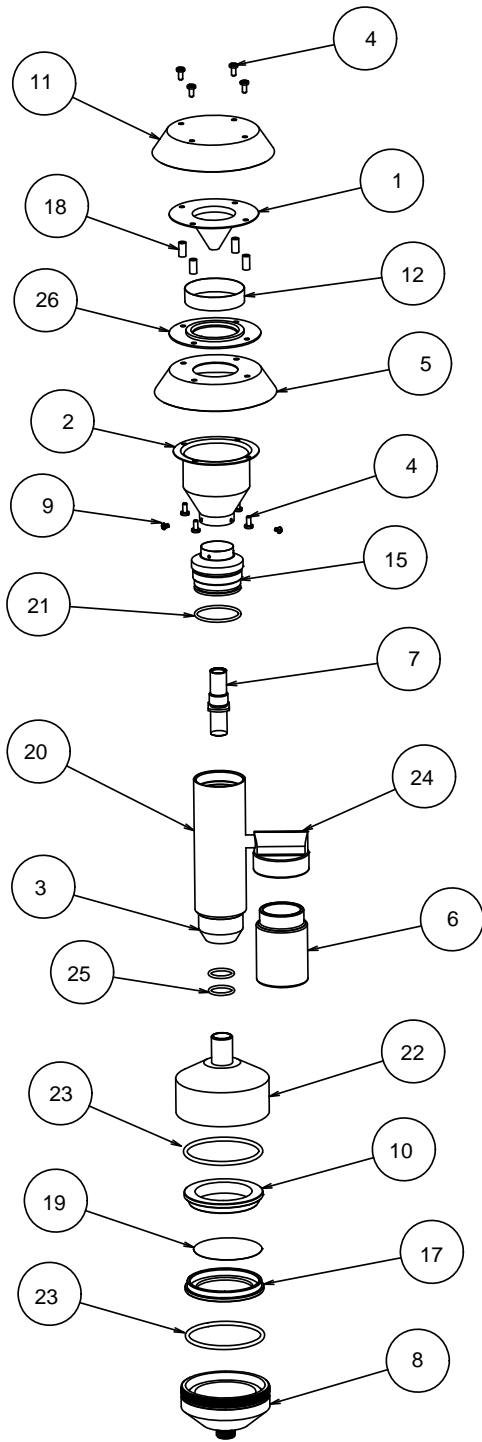
Cleaning should occur once every 90 days or sooner in highly polluted environments. Until such time as sufficient experience has been gathered, the unit should be inspected once a month. In order to perform an inspection it is only necessary, after removing the inlet from the top of the filter holder to unscrew the top from the bullet as shown in Figure 10.

Normal cleaning of air sampling inlets is generally, best done with clean water and lint free wiping cloths. If an ultrasonic cleaner is available it is the preferred device as it will remove dirt from deep corners and pockets, avoiding the need for further disassembly. After ultrasonic, or any liquid cleaning, be certain to dry thoroughly before reassembling and placing in service.

Summary of Maintenance Items:

Frequency*	Maintenance item
Every 5 sampling days	1. Service water collector bottle
Monthly	1. Clean inlet surfaces 2. Check inlet screen for any clogging
Quarterly (every 3 months)	1. Inspect O-rings. Remove and lightly coat them with Vacuum grease. 2. Clean impaction surface.

*Frequency may vary depending on climate, amount of particulate matter in the air, weather, and so on.



Detail #	Part #	Qty	Description
1	2585	1	2585 WIND DEFLECTOR
2	2583	1	2583 NOZZLE ENTRY
3	2602	1	2602 EXIT ADAPTER
4	10002	8	4-40 x 1-4 PAN HEAD
5	2586	1	2586 LOWER PLATE
6	OC13	1	JAR
7	2617	1	2617 NOZZLE INSERT, PM 2.5
8	1425	1	1425 FILTER HOLDER
9	OM10124	3	2-56 x 1-8 PAN HEAD
10	1727-L27	1	1727-L27 CASSETTE UPPER SEC.
11	2584	1	2584 TOP
12	2589	1	2589 SCREEN
13	2596	3	2596 RECEIVER TUBE
14	2595	1	2595 TARGET PLATE
15	2598	1	2598 IMPACTOR NOZZLE
16	OM10123	1	NIPPLE
17	1729-L29	1	1729-L29 CASSETTE LOWER SEC.
18	2588	4	2588 SPACER
19	1728-L28	1	1728-L28 FILTER SCREEN
20	2597	1	2597 OUTER TUBE
21	024 BUNA	1	024 ORING
22	2672	1	2672 UPPER FILTER HOLDER
23	135 BUNA	2	135 ORING
24	OM10120	1	JAR TOP
25	015 BUNA	2	015 ORING
26	2587	1	2587 RAIN DEFLECTOR

Fig. 9 Exploded Diagram of Inlet with Filter Holder

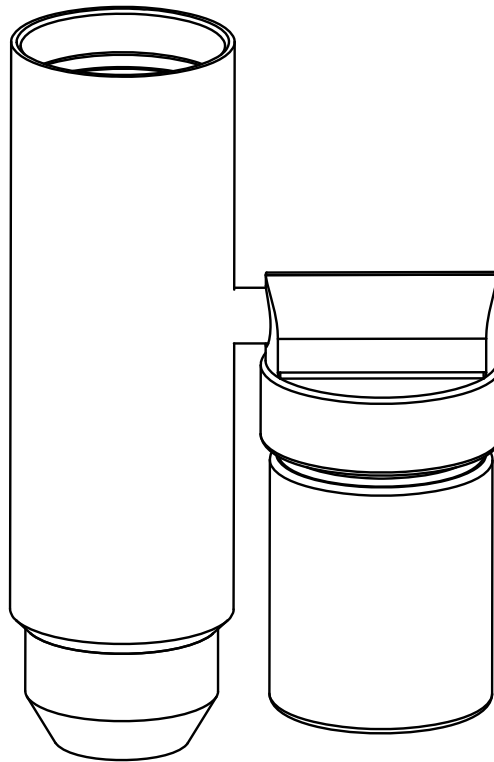
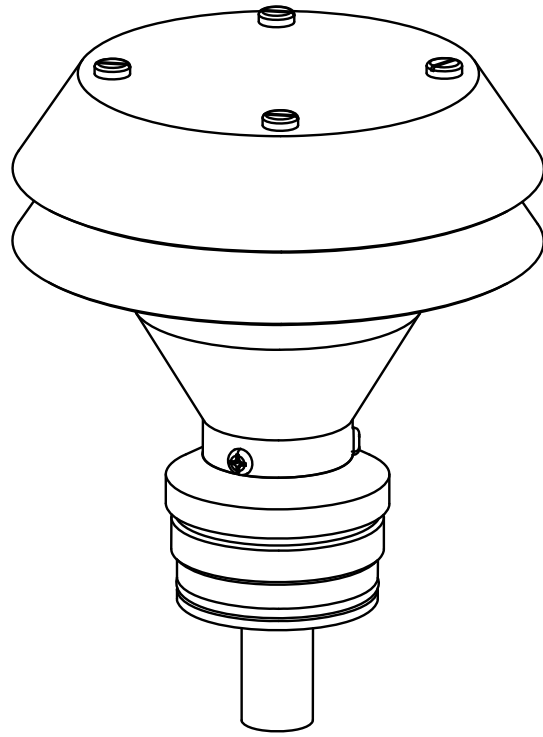


Figure 10: Drawing of Initial Disassembly of Inlet

The jet may also be removed from the top of the inlet as shown in Figure 11.

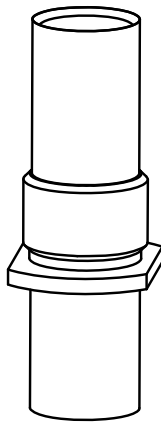
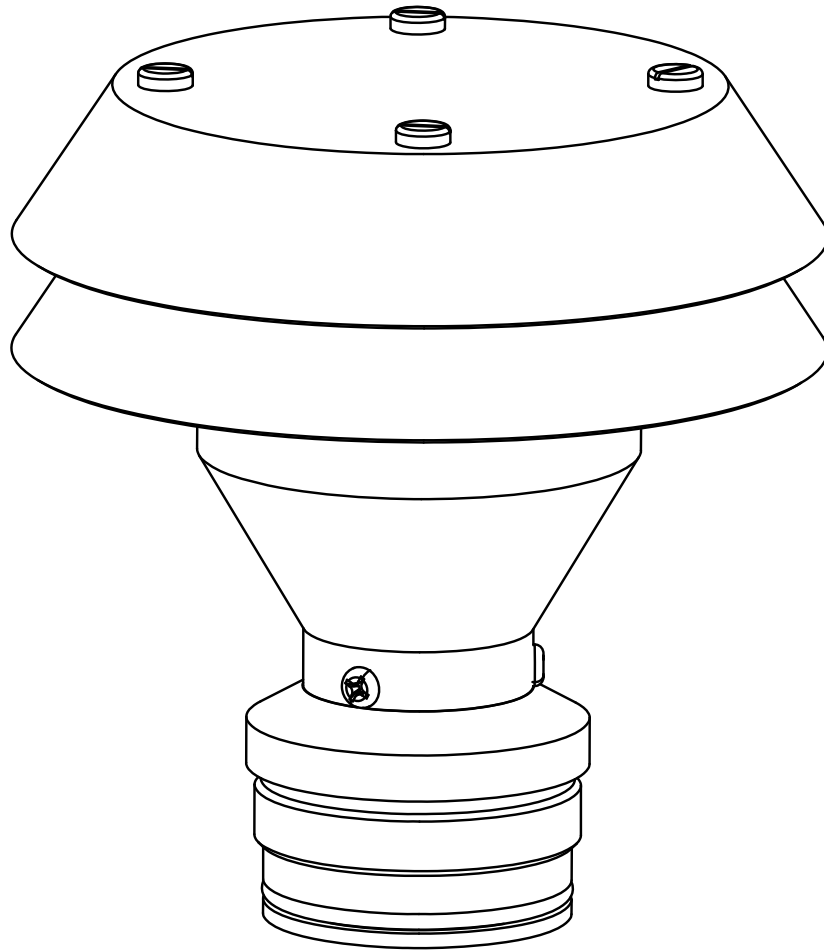


Figure 11: Drawing of Jet Removed for Cleaning or Size Change

REVISIONS

Revision 1.0 – released May, 2005 – Original

Revision 1.1 – released June, 2009 – changed photos to drawings in fig. 10 & 11. Improved fig. 9