

Electrostatic Agglomerator Side Withdrawal



Applications

The AES Environmental side withdrawal agglomerator has been designed to provide high efficiency, low resistance filtration in situations where longitudinal space is limited. They are ideally suited for the retrofit market and will fit into the space occupied by most deep bed filters with minimal plenum alterations.

Principle of Operation

The AES Environmental side withdrawal agglomerator consists of four major components - the ionizer, the collector cell, the panel filter and the power pack. Dirty air enters through the ionizer, which consists of a number of fine tungsten wires suspended between flat ground electrodes. A strong electrostatic field is set up between the wires and ground plates by a 13kV DC supply from the power pack.

The field is sufficiently strong to charge every particle which then passes through the collector cell that has parallel plates alternatively charged to 6.5kV DC by the power pack. As the dirt builds up in a unified mass, agglomerated particles of sufficient size flake off the plates and are carried by the airstream to be trapped and held by the media in the panel filter.

AES Environmental NATA-Accredited engineers can provide certified particle counters to quantify the performance of the Electrostatic Agglomerators, providing the client with independent confirmation of performance excellence.



PART NO.	RATED AIR FLOW L/S	MODEL	NO. OF PANEL FILTERS	DIMENSIONS W x H x L (MM)
1502-3740/5	944	1010	1	620 x 620 x 1210
1502-3740/6	1416	1001	1&1	930 x 620 x 1210
1502-3740/3	1888	1020	2	1240 x 620 x 1210
1502-3740/7	1888	2010	2	620 x 1240 x 1210
1502-3740/2	2832	2001	2 & 2	930 x 1240 x 1210
1502-3740/1	3776	2020	4	1240 x 1240 x 1210
1502-3740/4	4719	2011	4 & 2	1550 x 1240 x 1210

Maintenance

At regular intervals, determined by local dust conditions, the panel filters reach their dirt holding capacity and will need to be replaced. The collector cells will only require yearly inspection with a full strip clean about every three years. The power pack and ionizer voltages should be checked by a qualified electrician at least every twelve months.

Performance

The initial operating resistance of a side withdrawal agglomerator is 56Pa at rated capacity. Units are available in sizes from 944 l/s up to 4719 l/s capacity. In laying out a filter system it is required to have 1200mm clearance on the access side of the unit. Efficiencies of 87% to AS1132 No.1 Test Dust are constantly achieved at rated capacities. Independent studies have shown that efficiencies up to 95% @ 0.1 micron are also recorded.



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In keeping with our policy of continuing product improvement, we reserve the right to alter specifications without notice.





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