

SplitStream™ Dust Collector



Counter-Cyclonic Dust Collectors



Aerodyne®
ENVIRONMENTAL

17387 Munn Road • Chagrin Falls, OH 44023
(440) 543-7400 • FAX: (440) 543-7404
www.dustcollectorhq.com

Aerodyne®

The Aerodyne Advantage

The Aerodyne SplitStream™ Dust Collector has no major moving components and is capable of handling a wide range of materials, while requiring minimal maintenance. Particulate that is granular, fibrous, sticky, or hygroscopic, with process temperatures ranging from -20°F to +700°F, can be separated and collected for air pollution control or reclamation. The unique "counter-cyclonic" design elements of the SplitStream Collector ensure that a **minimal amount of particulate comes in contact with the interior walls**. This eliminates excess wear and enables the collection of abrasive particulate. The collector can be configured vertically or horizontally, providing easy installation in existing facilities or new locations. Used as an integrated part of an air cleaning system, this cyclonic dust collector **greatly extends the life of other process equipment**. Baghouses and cartridge filters are guarded against process heat which greatly extends the life of the bags or filters. Baghouses and cartridge filters will also stay cleaner longer, reducing material expenses and labor costs. The collected particulate can be returned to the process line for reuse or sent out for disposal.

Applications

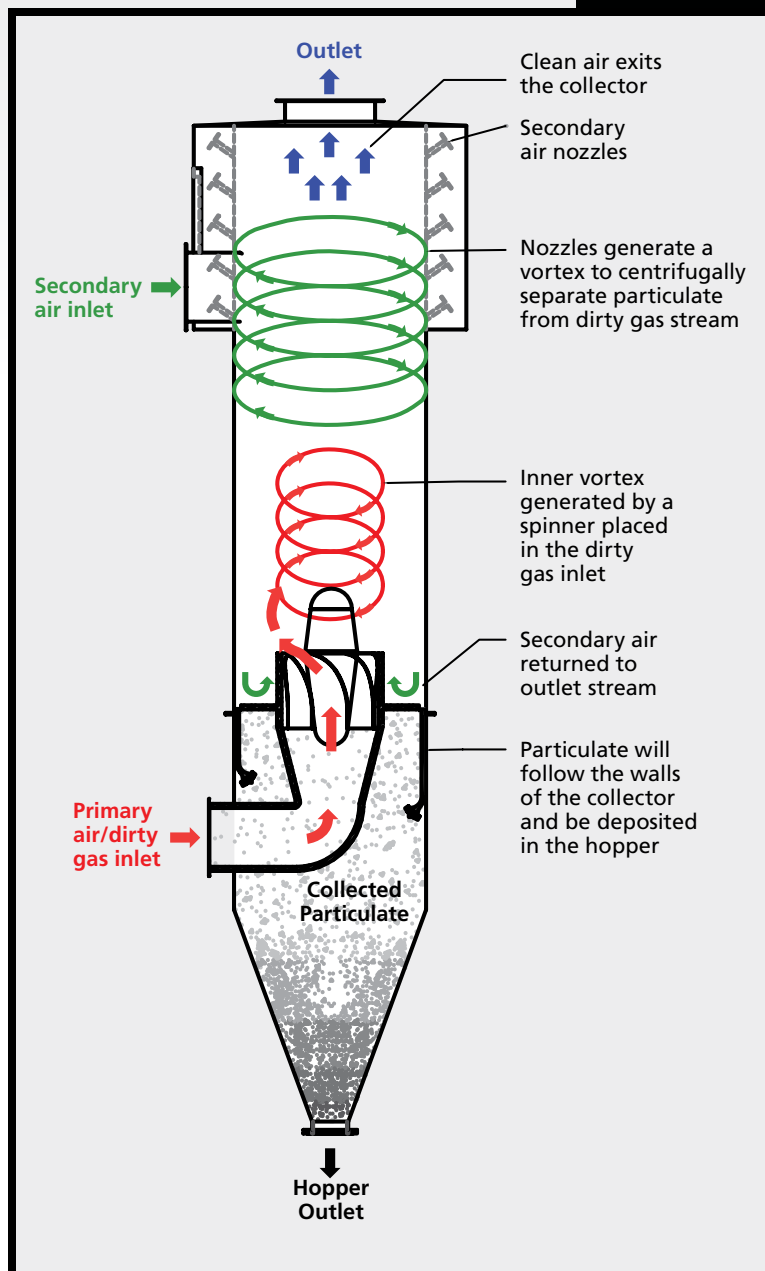
- Product reclamation
- Air pollution control
- Pre-filter for baghouses, cartridge collectors, wet scrubbers, and ESPs

Collector Designs

The SplitStream can use nozzles (S model) or vanes (SV model) to introduce the secondary airflow. The nozzles provide higher removal efficiencies, while the vanes are more suitable for dirty secondary air (sticky) or as a pre-filter.

How it Works

- The dirty gas stream enters the collector chamber and moves past the stationary spinner which imparts a rotation to the gas stream. Centrifugal force throws the collected particulate toward the outer walls where it is intercepted by a secondary gas stream and forced downward toward the hopper.
- The secondary gas stream keeps particulate away from the collector housing, eliminating the need for abrasion resistant materials or extra heavy construction.

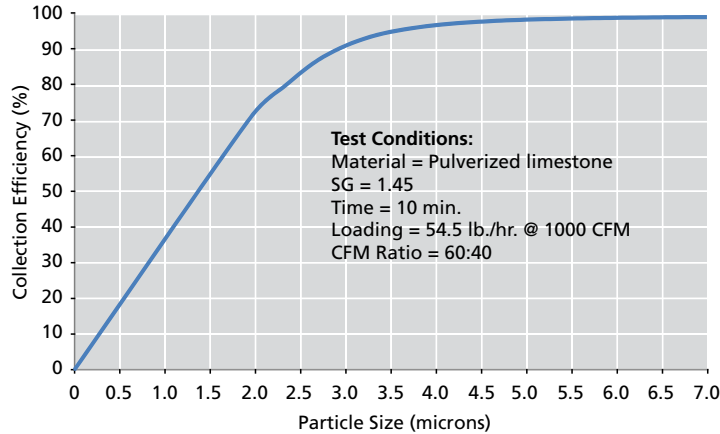


The SplitStream Collector handles:

- Saw dust
- Fly ash
- Sand
- Coffee
- Glass dust
- Cereal/grain
- Limestone dust
- Fiberglass dust
- Plastics
- Gypsum
- and many more

SplitStream™ Dust Collector

Efficiency Curve for Type "S" Collector



SplitStream Performance

The efficiency of the Aerodyne SplitStream Dust Collector rises as the size of the particulate increases. This high level of efficiency when handling larger dust particles makes the SplitStream Collector ideal for placement in process before bag houses or cartridge filters. By removing the majority of the large dust particulate before it reaches other process equipment, this counter-cyclonic dust collector is able to prolong the life of filter bags and cartridges. As a result, material and labor costs are dramatically decreased.

Key Points

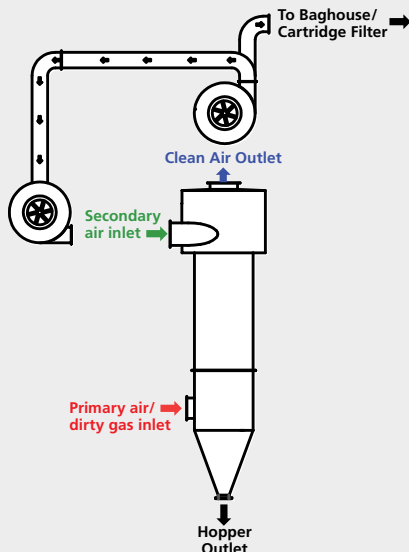
- Ideal dust collector for that "hard to handle" dust
- High removal efficiency of dust with low maintenance, easy disposal
- No moving components
- No filter replacement needed
- Horizontal or vertical configurations available
- Protects other equipment from process heat
- Unique design handles a wide range of materials; particulate that is abrasive, fibrous, sticky, or hygroscopic can be easily separated and collected for air pollution control or reclamation

Flexibility and Function

With three methods of air handling available, the Aerodyne SplitStream Dust Collector provides maximum flexibility while maintaining a high level of efficiency. Heating, cooling or drying can be accomplished at the same time that dust particles are removed from the air, and collection efficiency remains constant even at high temperatures.

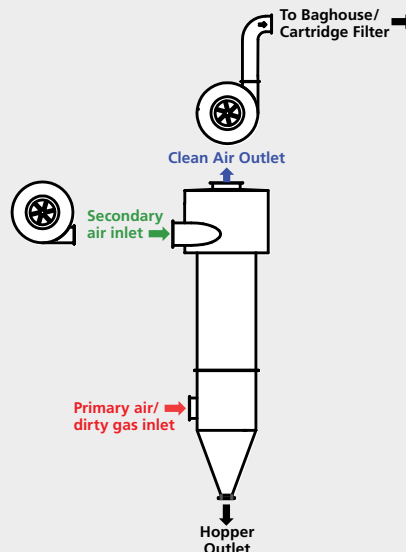
Type 1—Recycle

Secondary gas obtained from clean air outlet and recycled to the collector



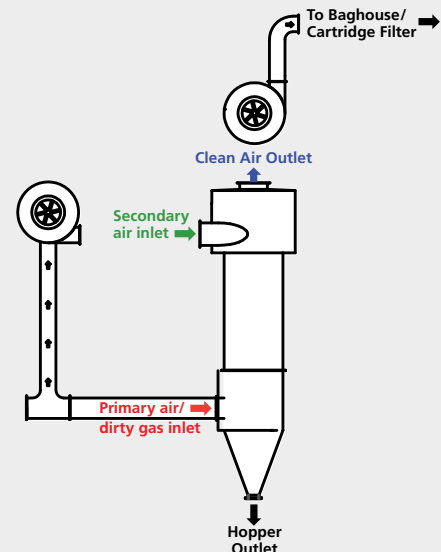
Type 2—Clean Secondary

Secondary gas obtained from shop air/ atmosphere and can be heated or cooled before entering the collector



Type 3—Dirty Secondary

Secondary gas obtained from primary air/dirty gas and cycled to the collector



Aerodyne® SplitStream™ Dust Collector

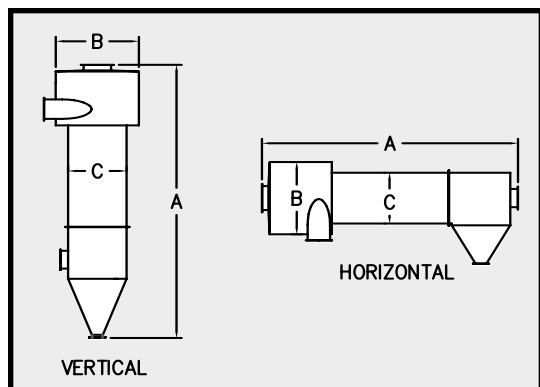
Specify Aerodyne® For Your Plant

Sized to Your Requirements for Maximum Efficiency

Check the table at the right to see which size and type collector will work for you.

It's a Fit

Because of its unique design, the Aerodyne SplitStream Dust Collector can be installed vertically, horizontally, or in parallel. With a wide range of sizes and installation options, the SplitStream is a perfect fit for nearly any plant space condition. The versatility of this counter-cyclonic dust collector means lower installation costs and lower maintenance. With no abrasion problems or moving parts, maintenance is kept to a minimum.



Contact Aerodyne for the quantity required for testing your material.

Collector Model	Dirty Gas	Secondary Gas	Collector Capacity Type 1	Collector Capacity Type 2 & 3
400 S	400	266	400	666
600 S	600	400	600	1000
800 S	800	533	800	1333
1000 S	1000	666	1000	1666
1500 S	1500	1000	1500	2500
2200 S	2200	1466	2200	3666
3000 S	3000	2000	3000	5000
3700 S	3700	2470	3700	6170
4500 S	4500	3000	4500	7500
6000 S	6000	4000	6000	10000
7500 S	7500	5000	7500	12500
10000 S	10000	6666	10000	16666
12500 S	12500	8333	12500	20833
15000 S	15000	10000	15000	25000
18000 S	18000	12000	18000	30000
22000 S	22000	14667	22000	36667

Collector Model	Vertical Installation (inches)			Horizontal Installation (inches)		
	A	B	C	A	B	C
400 S	72	20	12	73	20	12
600 S	94	24	16	89	24	16
800 S	110	28	18	97	28	18
1000 S	124	30	20	108	30	20
1500 S	119	37	24	106	37	24
2200 S	115	43	28	125	43	28
3000 S	166	47	32	142	47	32
3700 S	183	51	35	156	51	35
4500 S	200	55	40	174	55	40
6000 S	228	64	45	198	64	45
7500 S	257	70	52	225	70	52
10000 S	298	82	60	260	82	60
12500 S	331	92	68	294	92	68
15000 S	367	101	74	310	101	74
18000 S	399	111	79	312	111	79
22000 S	404	113	79	320	113	79

It's a dirty job...

Aerodyne can test your dust in our lab or you can rent a pilot unit for onsite testing. Contact a sales rep for all the dust testing options Aerodyne provides.



17387 Munn Road • Chagrin Falls, OH 44023
(440) 543-7400 • FAX: (440) 543-7404
www.dustcollectorhq.com