

General

Flanders introduces a room-side replaceable terminal filter hood for pharmaceutical and biotech clean rooms or wherever hoods are regularly validated for performance and leak free operation. The new ESD Model 22 is the next generation in the Flanders terminal hood product family that takes the Channel Hood Model 22 concept to a higher performance level.

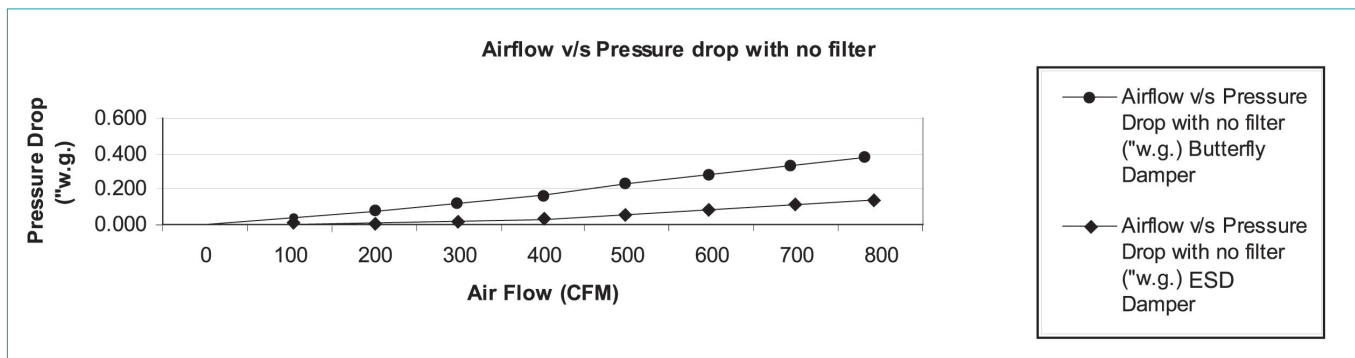
Installation Considerations

The ESD Model 22 may be installed in any application that currently facilitates a 2x4 nominal Channel Hood Model 22 or comparable product. Ideally suited for class 100 "spot"

applications, they may also be used to create class 10,000 to class 100,000 areas by locating the appropriate quantity of units in the ceiling.

Construction Options

The standard ESD Model 22 shall be constructed of 14 gauge aluminum or 16 gauge 304 grade stainless steel. Other options such as 16 gauge 316/316L stainless steel and a variety of finishes are available upon request. All straight seams of the plenum enclosure shall be continuously welded. All other joints shall be intermittently welded and sealed with RTV sealant. The ESD Model 22 is available with all current Channel Hood 22 options.



Important Features

- **Fine Adjustment**
Damper can be adjusted in increments of 10%
- **Uniform Air Distribution**
Velocity Uniformity within 5%
- **Low Noise**
- **Low Pressure Drops**
Unit has a differential pressure of 0.15 \"w.g. with aerosol injection installed



ESD Model 22 compared to standard damper options:

Filter Type	Guillotine Damper Model 22 w/2" HEPA Filter	ESD Model 22 w/ 2" HEPA Filter	Butterfly Damper Model 22 w/2" HEPA Filter	ESD Model 22 w/2" HEPA Filter
Air Velocity (fpm)	100	100	100	100
Initial Resistance (in w.g.)	0.79	0.66	1.02	0.66
Final Resistance (in w.g.)	1.31	1.17	1.54	1.17
Average Resistance (in w.g.)	1.05	0.92		
Difference in Avg. Resistance	0.14		0.37	
Syst. Flow CFM	800	800	800	800
Filter Service Life (years)	5	5	5	5
Days of Operation	7	7	7	7
Weeks of Operation	52	52	52	52
Daily Hours of Operation	24	24	24	24
Filter Service Life (hours)	43680	43680	43680	43680
Motor Efficiency	65%	65%	65%	65%
Horse Power Required	0.20	0.18	0.25	0.18
Total Power Required (Kwh)	6646	5792	8102	5792
Cost of Energy (\$/Kwh)	0.085	0.085	0.085	0.085
Annual Energy Cost per Filter	\$112.98	\$98.46	\$137.73	\$98.28
Annual Energy Cost Savings with ESD	\$14.53		\$39.28	
Qty Hoods	30	30	30	30
Total Energy Cost Annual	\$3,389.54	\$2,953.74	4,132.01	2953.74
Annual Cost Savings	\$435.80		\$1178.27	

Flanders/FFI®

Flanders Filters, Inc.
531 Flanders Filters Road
Washington, NC 27889

Phone: 252-946-8081
Fax: 252-946-3425
Toll Free: (800)637-2803

Website: www.flanderscorp.com

Represented By