

Automatically Adjusts To Maintain a Constant Airflow

SAM MicroSound ECM fan filter units key features include...

- A local potentiometer to set desired airflow.
- Digital speed display.
- An electronically commutated motor that is programmed to increase the speed as the load increases to maintain a constant airflow.
- Low power consumption.
- Low sound levels.



SAM MicroSound ECM GS units feature a roomside removable filter element with a gel channel on the upstream side of the final filter which provides a leak-free seal between the filter and the filter housing.

SAM MicroSound ECM NCR units feature a low profile unit with an upstream gasket for a leakfree seal between the final filter and the SAM plenum.

Housings are fabricated from steel with a white powdercoat finish.

The ECM motor blower is a 1/3 HP, motor with a forward curved blower. Units are available in 115V (60 Hz), 208-230V (50/60Hz) and 277V (60 Hz).

SAM MicroSound Fan Filter Units include a 99.99% efficient HEPA filter, 30% ASHRAE pleated type prefilter, seismic clip suspension points.

Final filters are protected with a white epoxy diamond pattern grille and are tested according to accepted procedures as described by the Institute of Environmental Sciences (IEST) and/or ISO standards. The standard HEPA filter is 99.99% eff. and an ULPA grade 99.9995% eff. filter is available as an option.

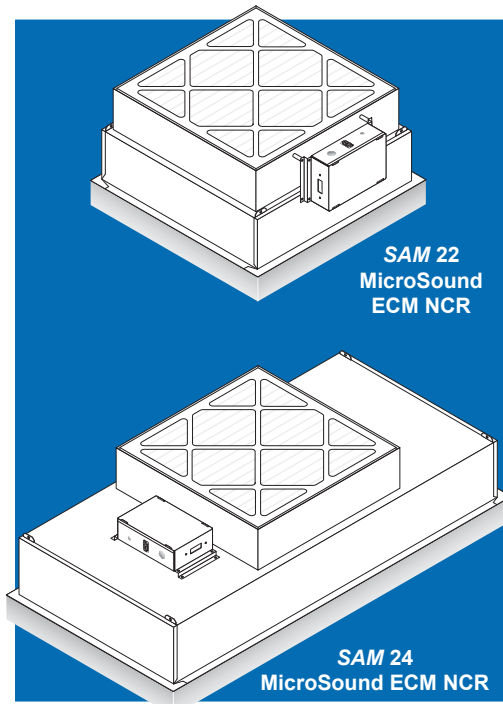
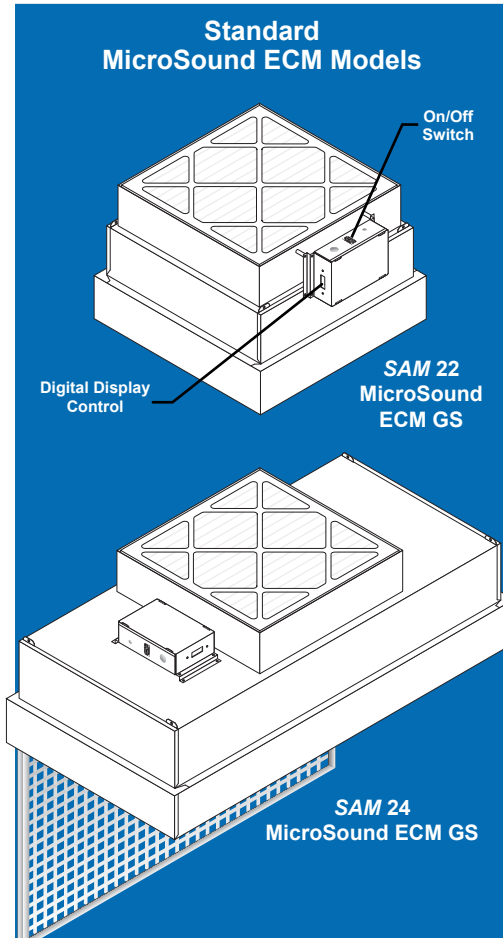
A polystyrene eggcrate grille in an anodized aluminum frame is hinged to open, permitting removal of the filter without removing the unit from the ceiling (GS models only). Optional perforated stainless steel or aluminum grilles are available.

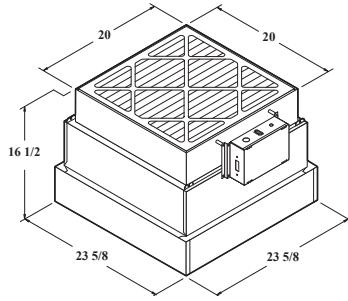
Some of the many available options include: roomside motor access and challenge ports, duct collars, ULPA filtration and stainless steel construction.

Many control options are available, including MODBUS RTU protocol networking, infrared remote control, roomside digital display, or a complete SAMlink Control System.

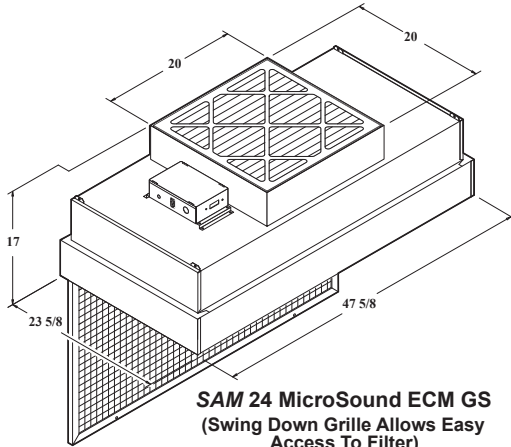
For other control options or further information please consult with your Clean Rooms International representative or contact the factory.

SAM is a registered trademark owned by Clean Rooms International

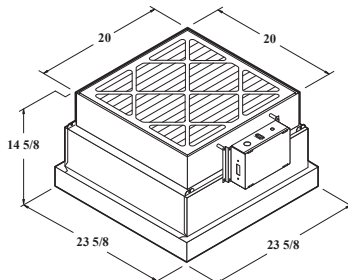




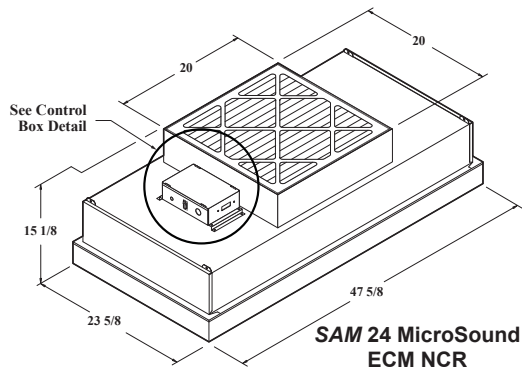
SAM 22
MicroSound ECM GS



SAM 24 MicroSound ECM GS
(Swing Down Grille Allows Easy Access To Filter)



SAM 22
MicroSound ECM NCR



SAM 24 MicroSound ECM NCR

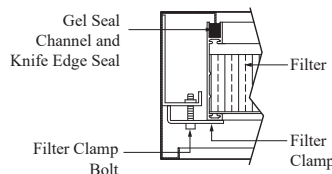
GS Style Filter Data: The HEPA Filter is designed for 90 FPM average face velocity @ initial 0.47 w.g. and has a rated efficiency of 99.99% @ 0.3 micron or larger. An anodized aluminum frame holds the 53mm media which is protected by a diamond pattern white epoxy coated steel grille. Final filters are replaceable from roomside.

NCR Style Filter Data: The HEPA Filters are designed for 90 FPM average face velocity @ initial 0.47 w.g. and have a rated efficiency of 99.99% @ 0.3 micron or larger. An anodized aluminum frame holds the 53mm media which is protected by a diamond pattern white epoxy coated steel grille. Final filters can be replaced by removing unit from ceiling, placing on a bench, removing and replacing the filter and re-installing unit in ceiling.

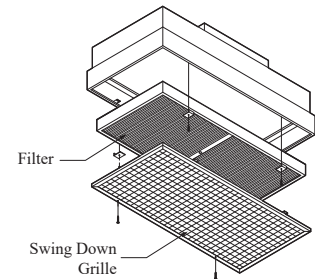
Access Port (GS Style Only): This port is located in the center of the filter element face and is used for introducing an upstream challenge or measuring static pressure.

Air Flow: Designed for 90 FPM +/- 20%. On 2x4 units at 90 FPM, the CFM is 630 for the NCR style and 520 for the GS style.

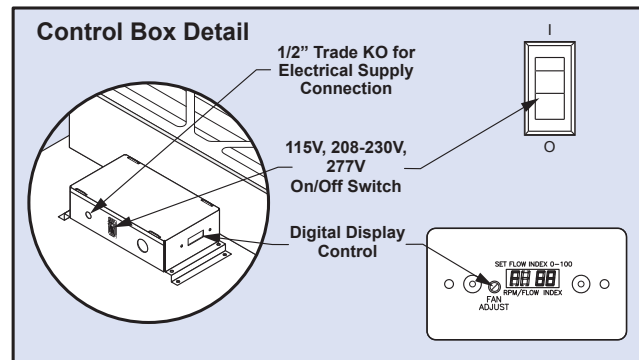
Sound Level: At 90 FPM with a clean unloaded HEPA filter and zero e.s.p. the sound level is 50-53 dBA.



Filter Clamp Detail



Exploded View



Base Model (Ordering Information)							
Mfg. Code	Model or Description	Style	Size	Voltage	Motor	HEPA Filter	Weight
12327	SAM 22 MS ECM NCR	NCR	2 x 2	115	ECM	302070	66 lbs. (29.9 kg.)
12328	SAM 22 MS ECM NCR	NCR	2 x 2	208-230	ECM	302070	66 lbs. (29.9 kg.)
12329	SAM 22 MS ECM NCR	NCR	2 x 2	277	ECM	302070	66 lbs. (29.9 kg.)
12333	SAM 24 MS ECM NCR	NCR	2 x 4	115	ECM	302090	77 lbs. (34.9 kg.)
12334	SAM 24 MS ECM NCR	NCR	2 x 4	208-230	ECM	302090	77 lbs. (34.9 kg.)
12335	SAM 24 MS ECM NCR	NCR	2 x 4	277	ECM	302090	77 lbs. (34.9 kg.)
12330	SAM 22 MS ECM GS	GS	2 x 2	115	ECM	302201	81 lbs. (36.7 kg.)
12331	SAM 22 MS ECM GS	GS	2 x 2	208-230	ECM	302201	81 lbs. (36.7 kg.)
12332	SAM 22 MS ECM GS	GS	2 x 2	277	ECM	302201	81 lbs. (36.7 kg.)
12336	SAM 24 MS ECM GS	GS	2 x 4	115	ECM	302200	101 lbs. (45.8 kg.)
12337	SAM 24 MS ECM GS	GS	2 x 4	208-230	ECM	302200	101 lbs. (45.8 kg.)
12338	SAM 24 MS ECM GS	GS	2 x 4	277	ECM	302200	101 lbs. (45.8 kg.)

Performance Data* (2x4 units**)								
Style	Motor	Voltage	Hz	Watts @90FPM	CFM @90FPM	Running Amps @90FPM	Max CFM	Watts @Max CFM
NCR	ECM	115	60	135	630	1.82	730	245
NCR	ECM	208-230	50/60	135	630	1.10	730	245
NCR	ECM	277	60	135	630	.79	730	245
GS	ECM	115	60	96	520	1.34	710	265
GS	ECM	208-230	50/60	96	520	.78	710	265
GS	ECM	277	60	96	520	.58	710	265

* Based on 60Hz, without a prefilter, 0.0" ESP

** Consult factory for 2x2 units

Performance testing based on Shortridge multi-point velgrid with 2" standoffs



Replacement Filters	
Mfg. Code	Description
302201	2 x 2 GS Style HEPA Filter, 99.99% eff. @ 0.3 micron
302204	2 x 2 GS Style ULPA Filter, 99.9995% eff. @ 0.12 micron
302200	2 x 4 GS Style HEPA Filter, 99.99% eff. @ 0.3 micron
302203	2 x 4 GS Style ULPA Filter, 99.9995% eff. @ 0.12 micron
302070	2 x 2 NCR Style HEPA Filter, 99.99% eff. @ 0.3 micron
302071	2 x 2 NCR Style ULPA Filter, 99.9995% eff. @ 0.12 micron
302090	2 x 4 NCR Style HEPA Filter, 99.99% eff. @ 0.3 micron
302100	2 x 4 NCR Style ULPA Filter, 99.9995% eff. @ 0.12 micron
302190	Prefilter 20" x 20" x 1", 30% ASHRAE efficient, pleated type