1/5 HP
3-Speed Fan Powered
Filter Module
Low Sound, Economical

SAM MS 3-S Fan Filter Units provide quiet performance and economy while delivering 90 FPM airflow velocities, perfect for most cleanroom applications. Base design includes a 99.99% efficient HEPA filter, a prefilter and a 3-speed switch with an off position which disables the unit while servicing.

Housings are fabricated from steel with a white powdercoat finish and include seismic clip suspension points.

The 1/5 HP motor blower is a forward curved direct drive motor/blower assembly with isolation mounts. Units are available in 115 Volt (60 Hz) and 277 Volt (60 Hz).
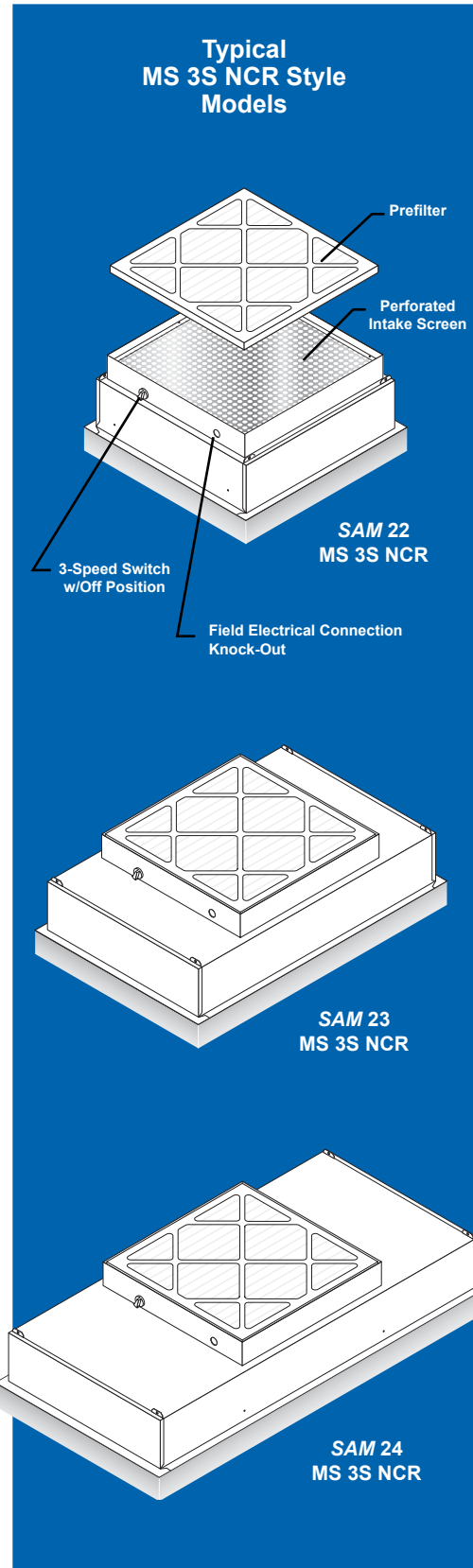
Final filters are protected with a white epoxy diamond pattern grille and are tested according to accepted procedures as described by the Institute of Environmental Sciences (IEST) and/or ISO standards. The standard HEPA filter is 99.99% eff. and an ULPA grade 99.9995% eff. filter is available as an option.
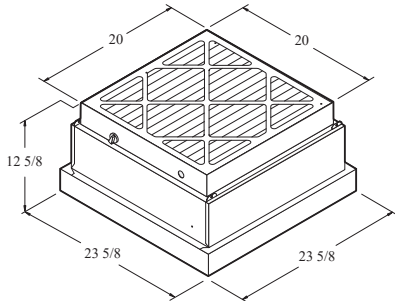
Optional perforated stainless steel or aluminum grilles are available.

Other popular options include an 8' power cord (115 Volt only). Refer to the back of this section for more options and accessories.

Typical
MS 3S NCR Style
Models

Prefilter

Perforated
Intake Screen

SAM 22
MS 3S NCR

3-Speed Switch
w/Off Position

Field Electrical Connection
Knock-Out

SAM 23
MS 3S NCR

SAM 24
MS 3S NCR

c(UL)us
LISTED
AIR FILTERING APPLIANCE
4FA0

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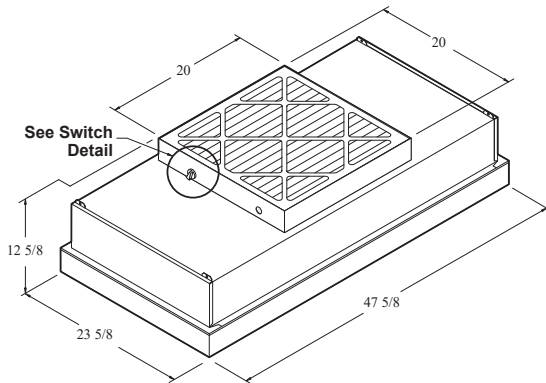
SAM 22 MS 3S NCR

SAM 23 MS 3S NCR

See Switch Detail

SAM 24 MS 3S NCR

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.

Low Profile: All *SAM* MicroSound NCR Style Models are 12-5/8" high.

Air Flow: Airflow ranges from 500 to 750 CFM for a 2 x 4 unit and 250 to 400 CFM for a 2 x 2 unit. At 90 FPM, CFM is nominal 632 on a 2 x 4 and 300 on a 2 x 2 unit respectively.
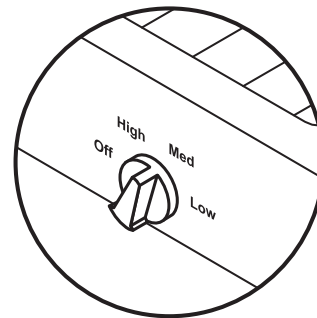
General Information:

Standard Ceiling Size: All 2' x 4' models are designed to fit a nominal 2' x 4' ceiling grid with a 22.5" x 46.5" standard opening.

Sound Level: At average face velocity of 90 FPM measured 30" from face of filter, sound level is approximately 50-52 dba with less than 45 dba ambient sound level. Field conditions, voltage and method of testing could produce different results.

Popular Options: Refer to a following page for a list of popular options.

Switch Detail 115V/277V

Motor Data								
Motor	**Voltage**	**Hz**	**Amps**			**Start-Up Amps** [1, 2]		
			Low	Med	High	Low	Med	High
1/5 HP	115	60	1.45	1.95	2.85	1.70	2.60	5.0
1/5 HP	277	60	.52	.71	1.1	.60	.85	1.5
(1) Line voltage can affect actual start-up amperage								
(2) Use standard NEC tables for sizing circuits								

Replacement Filters	
Mfg. Code	**Description**
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
302013	2 x 3 NCR Style HEPA Filter, 99.99% eff. @ 0.3 micron
302015	2 x 3 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 eff., pleated type

Base Model
(Ordering Information)

Mfg. Code	Model or Description	Style	Size	Voltage	Motor	HEPA Filter	Weight
12339	*SAM* 22 MS 3S NCR*	NCR	2 x 2	115	1/5 HP	302070	58 lbs. (26.3 kg.)
12340	*SAM* 22 MS 3S NCR*	NCR	2 x 2	277	1/5 HP	302070	58 lbs. (26.3 kg.)
12343	*SAM* 23 MS 3S NCR*	NCR	2 x 3	115	1/5 HP	302013	62 lbs. (28.1 kg.)
12344	*SAM* 23 MS 3S NCR*	NCR	2 x 3	277	1/5 HP	302013	62 lbs. (28.1 kg.)
12347	*SAM* 24 MS 3S NCR*	NCR	2 x 4	115	1/5 HP	302090	65 lbs. (29.5 kg.)
12348	*SAM* 24 MS 3S NCR*	NCR	2 x 4	277	1/5 HP	302090	65 lbs. (29.5 kg.)

* UL Listed
  3 Speed Switch Standard on all Models