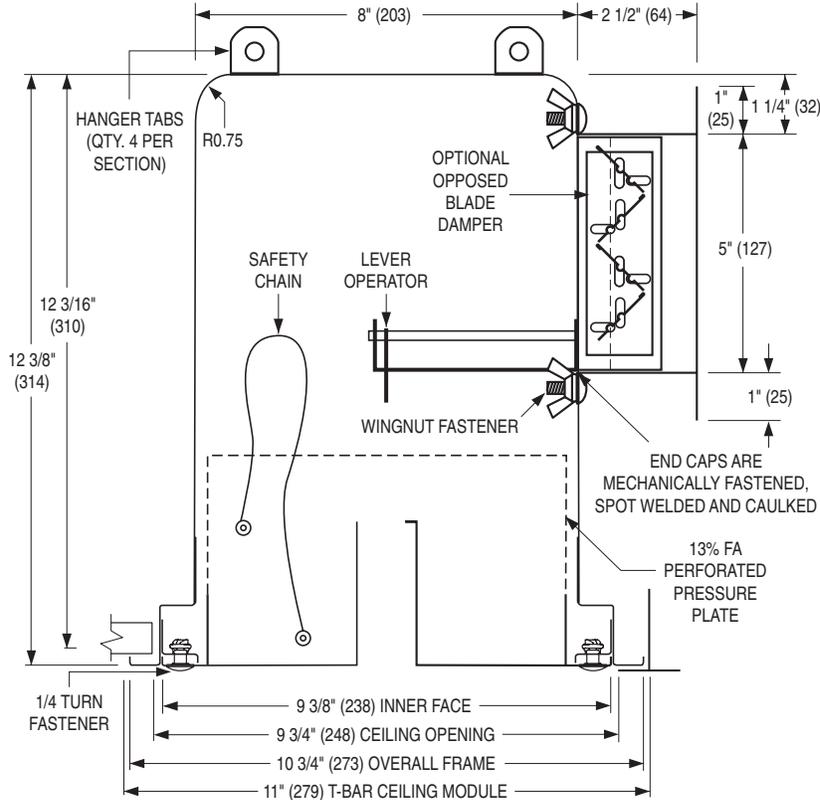




**STERI-SYSTEM LINEAR SLOT DIFFUSER
OPERATING ROOM AIR CURTAIN
MODELS: 92LS-AL (-O) ALUMINUM AND
92LS-SS(-O) STAINLESS STEEL**



TYPE S
SURFACE MOUNT

TYPE L
LAY-IN T-BAR

* Compatible with T-Bars up to 1 1/2" (38) wide.

DESCRIPTION:

The Model Series 92LS Steri-System Linear Slot Diffuser is specially designed to provide an air curtain for operating rooms. The unique slot design creates a continuous curtain of air, angled outwards 5 – 15 degrees, that encloses the operating area and minimizes the possibility of contaminated air entering the surgical area. The plenum is seamless construction along the length with radiused corners to facilitate cleaning.

An optional stainless steel opposed blade damper is available for balancing. The damper is held in place by wing nuts and can be easily removed for cleaning. A lever operator is standard for accurate adjustment from the face of the diffuser.

STANDARD FEATURES:

1. Type 304 Stainless Steel face and distribution plenum. Minimum 22 ga. End caps are mechanically fastened, spot welded and caulked.
2. Stainless Steel or aluminum pressure plate dependent on model.
3. Standard safety cables prevent accidental dropping of the removable face.
4. All face panels attached with stainless steel 1/4 turn fasteners.

CONSTRUCTION:

- 92LS-SS Stainless Steel
- 92LS-AL Aluminum

OPTIONS:

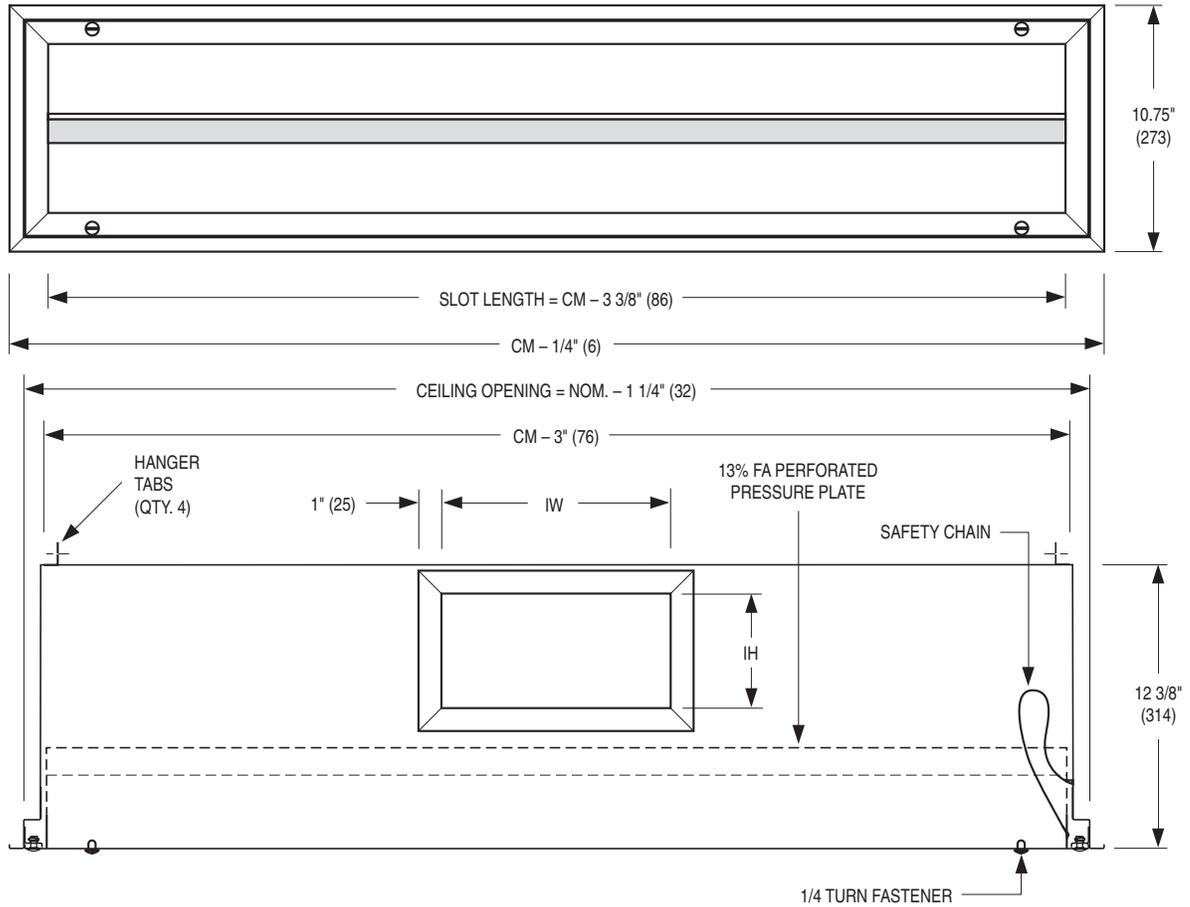
- 316 Type 316 Stainless Steel construction (-SS models only).
- Opposed Blade Damper Model Suffix -O.
- #4 Brushed Satin Polished (-SS models only).
- AW Appliance White (standard on -AL models, optional on -SS models).
- FWP 18 ga. (1.219) stainless steel fully welded plenum construction.

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:				
CONTRACTOR:				
DATE	B SERIES	SUPERSEDES	DRAWING NO.	
3 - 10 - 20	92LS-SS	9 - 2 - 16	92LS-1	



STERI-SYSTEM LINEAR SLOT DIFFUSER
OPERATING ROOM AIR CURTAIN
MODELS: 92LS-AL (-O) ALUMINUM AND
92LS-SS(-O) STAINLESS STEEL

2 FT. – 6 FT. MODULES (24" – 72")



STANDARD SIZES:

CM Ceiling Module	No. of Sections	IW X IH	Inlet Qty.
4 ft./48" (1219)	1	10" x 5" (254 x 127)	1
6 ft./72" (1829)	1	16" x 5" (406 x 127)	1

OPTIONS:

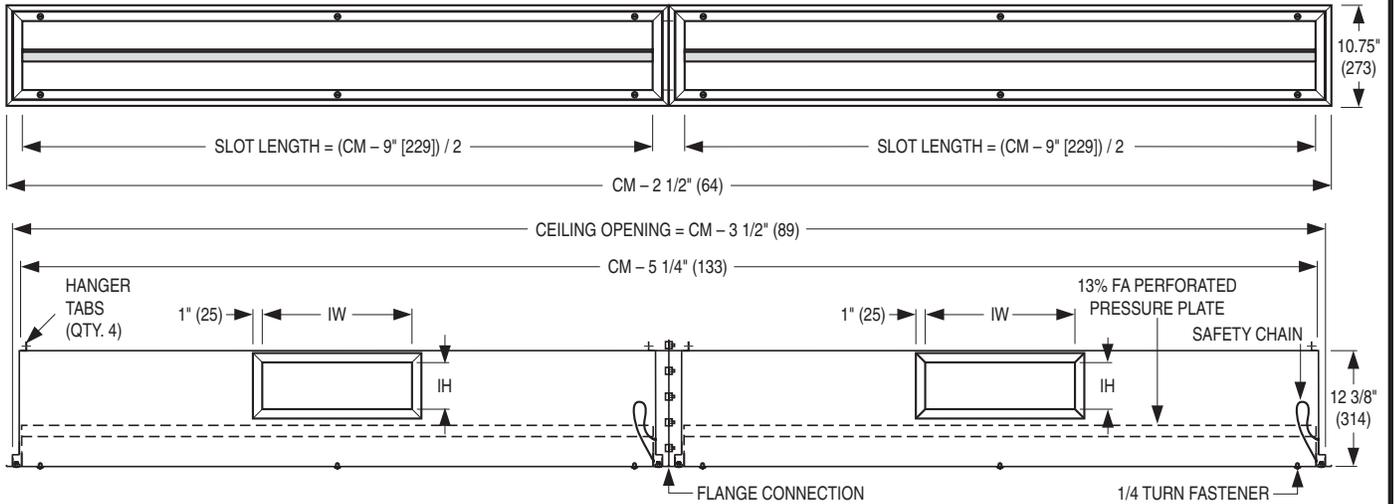
- CTMI Custom Inlet Size
Specify ___ IW x ___ IH
(available IH height is 4", 5" or 6" [102, 127 or 152]).
- CTML Custom Length
Specify ___ L

SCHEDULE TYPE:		Page 2 of 4			
PROJECT:		Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.	
CONTRACTOR:	3 - 10 - 20	92LS-SS	9 - 2 - 16	92LS-1	



**STERI-SYSTEM LINEAR SLOT DIFFUSER
OPERATING ROOM AIR CURTAIN
MODELS: 92LS-AL (-O) ALUMINUM AND
92LS-SS(-O) STAINLESS STEEL**

8 FT. – 14 FT. MODULES (96" – 168")



STANDARD SIZES:

CM Ceiling Module	No. of Sections	IW X IH	Inlet Qty.
8 ft./96" (2438)	2	10" x 5" (254 x 127)	2
10 ft./120" (3048)	2	12" x 5" (305 x 127)	2
12 ft./144" (3658)	2	16" x 5" (406 x 127)	2
14 ft./168" (4267)	2	18" x 5" (457 x 127)	2

OPTIONS:

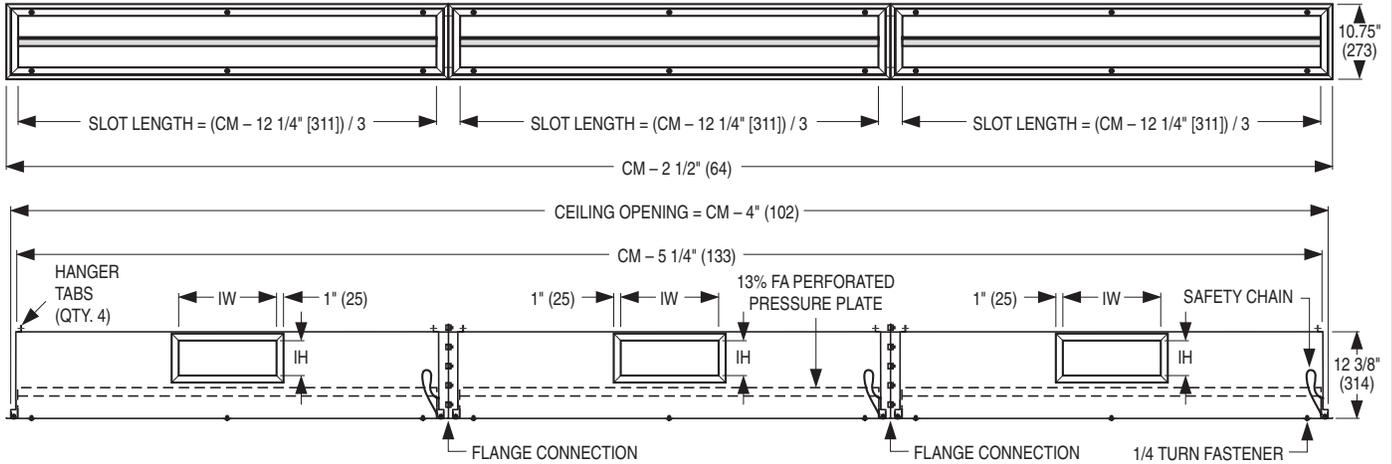
- CTMI Custom Inlet Size
Specify ____ IW x ____ IH
(available IH height is 4", 5" or 6" [102, 127 or 152]).
- CTML Custom Length
Specify ____ L

SCHEDULE TYPE:		Page 3 of 4			
PROJECT:		Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.	
CONTRACTOR:	3 - 10 - 20	92LS-SS	9 - 2 - 16	92LS-1	



**STERI-SYSTEM LINEAR SLOT DIFFUSER
OPERATING ROOM AIR CURTAIN
MODELS: 92LS-AL (-O) ALUMINUM AND
92LS-SS(-O) STAINLESS STEEL**

16 FT. – 18 FT. MODULES (192" – 216")



STANDARD SIZES:

CM Ceiling Module	No. of Sections	IW X IH	Inlet Qty.
16 ft./192" (4877)	3	14" x 5" (356 x 127)	3
18 ft./216" (5486)	3	16" x 5" (406 x 127)	3

OPTIONS:

- CTMI Custom Inlet Size
Specify ____ IW x ____ IH
(available IH height is 4", 5" or 6" [102, 127 or 152]).
- CTML Custom Length
Specify ____ L

SCHEDULE TYPE:
PROJECT:
ENGINEER:
CONTRACTOR:

Page 4 of 4
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
3 - 10 - 20	92LS-SS	9 - 2 - 16	92LS-1

Nailor offers a selection of standard colors and finishes available on our grilles, registers and diffusers. For painted finishes, our state-of-the-art paint systems provide environmentally friendly finishing solutions with uniform coverage and coating thickness. The result is an exceptionally durable finish that resists scratching, corrosion and general wear. Additional facilities for special requirements, as well as a selection of anodized or brushed finishes, complete our ability to provide unmatched beauty and durability for any application.

NAILOR POWDER COAT PROPERTIES

FILM THICKNESS	2.0 to 3.0 mils
HARDNESS	2 H
IMPACT RESISTANCE	Direct: 160 inch - lbs. Reverse 160 inch - lbs.
SALT SPRAY	1000 hours

ELECTROCOATING PROPERTIES

FILM THICKNESS	.8 to 1.2 mils
HARDNESS	HB TO H
IMPACT RESISTANCE	80 inch - lbs
SALT SPRAY	100 hours


POWDER COAT

Nailor's powder coat is a high-tech thermosetting polyester powder coating with superior physical properties that provide excellent color and gloss retention. The finish offers extreme durability and hardness that resists scratching, chipping and general wear. Surface preparation includes degreasing and a chemical cleaning followed by a clean rinse before a final powder coat finish is applied and baked. The environmentally friendly Nailor powder coat system assures uniform coverage and color consistency resulting in a long lasting superior finish. Colors, including simulated anodizing, which is far more economical than color anodizing, can be selected from Nailor's standard color chart or non-standard colors and can be matched from sample chips provided to Nailor.

ELECTROCOATING

E-Coat is an environmentally friendly coating that provides complete coverage and a wide range of performance properties, formulated to meet corrosion, durability and other performance specifications. Electrocoating is a highly automated process in which paint is electrically deposited onto a metal foundation. Film build thickness is uniform and overall application efficiencies are in excess of 90%. Paint is consistent on all part-to-part surfaces, preventing sags, runs or drips. E-Coat offers flexibility, better first yield pass and quicker production times compared to other forms of paint applications. Electrocoating is an excellent solution that offers superior properties and uniform finish.

CLEAR ANODIZING (Aluminum products only)

Clear anodizing is a clear oxide coating that exemplifies an aluminum surface's natural oxide coating producing a hard, scratch resistant surface that is resistant to general wear and mild chemicals. The process provides a natural looking, virtually maintenance free finish that will endure for many years.

COLOR ANODIZING (Aluminum products only)

Color anodizing is an electrolytic process where, after standard anodizing procedures, colored metallic pigments penetrate the oxide surface pores producing a corrosion resistant, colorfast finish. The process results in a natural metallic appearance that requires little maintenance.

BRUSHED AND CLEAR COAT

Available on specific aluminum products (consult applicable product page for availability). Surface is brushed to achieve a scratch finish texture before being degreased and chemically cleaned. A clear lacquer coating is then applied to provide a durable protective finish.

#4 BRUSHED SATIN POLISHED (Stainless Steel products only)

Surface is polished to ASTM A480 #4 standard to achieve a bright durable finish that is resistant to mild chemicals and corrosion. A final coating is not required due to the inherent anti-corrosion properties of the stainless steel.

PRIME COAT

Prime coat provides a stable base for painting in the field. Surface pretreatment includes degreasing and a chemical cleaning before an alkyd prime coat is applied. After a thorough cleaning for dust, etc. that can contaminate the final finish and cause premature flaking or peeling, finish coat should be field applied as soon as possible.

PAINT PREPARED ALUMINUM (Aluminum products only)

Allows for field applied paint. Surface preparation includes degreasing and a chemical cleaning followed by a clean rinse. Finish coat should be field applied as soon as possible.

MILL FINISH

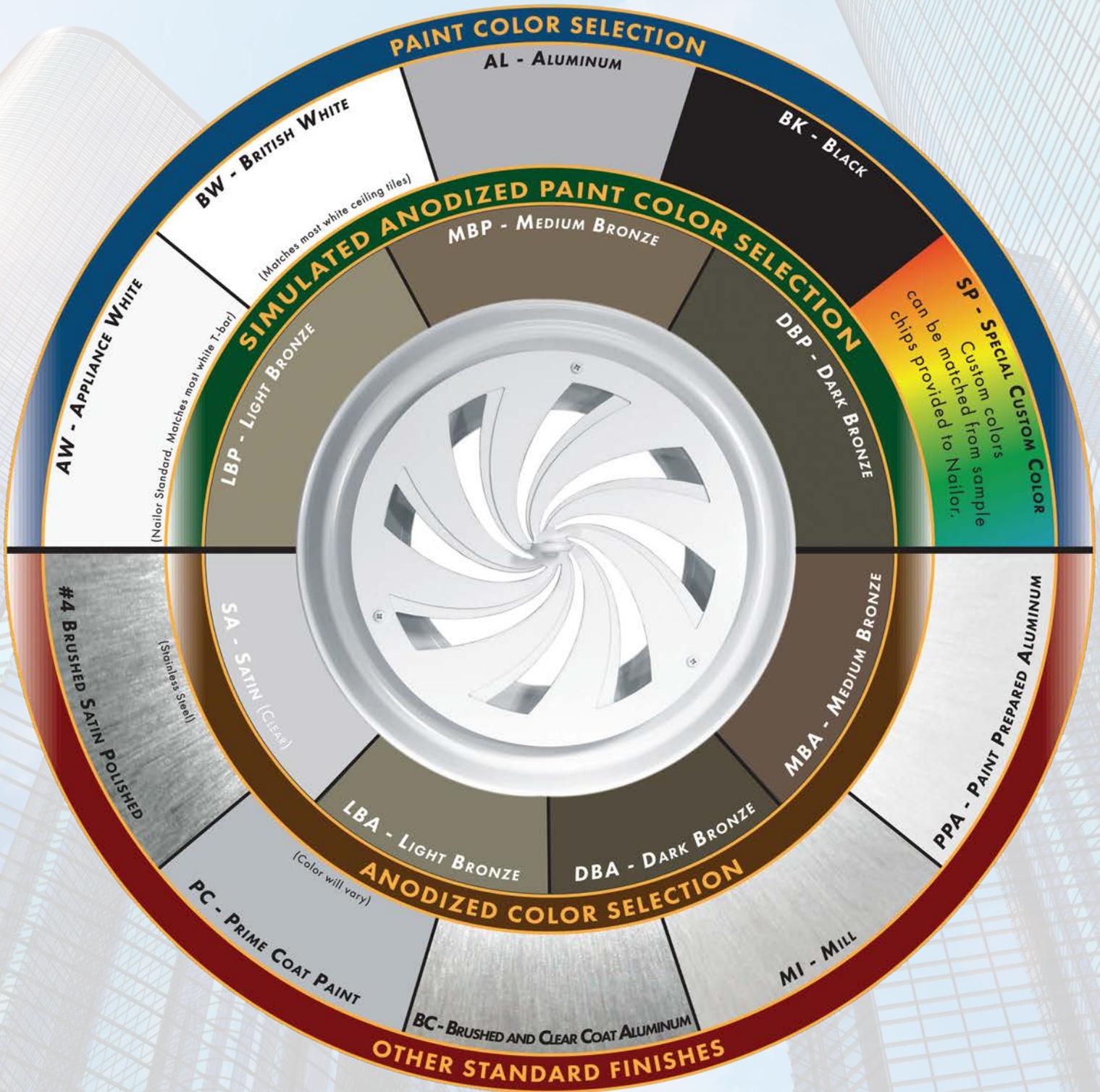
Surface is left untreated and requires cleaning, degreasing, etc. in the field before final finish can be applied if required.



Nailor[®]
Industries Inc.

STANDARD AND OPTIONAL FINISHES FOR GRILLES AND DIFFUSERS

The following standard colors and finishes are available on applicable Nailor air distribution products. Consult individual product pages for availability



The pictured finishes have been represented as best as possible within printing limitations. However, actual finish may vary. Contact your Nailor representative for a color chip sample on the material specified for a more accurate representation.

DBK - Black (for registers ordered with factory mounted dampers) - **BA** - Perforated Diffusers (4300 series only) Appliance White (AW) face with black back pan and pattern controllers.

"Complete Air Control and Distribution Solutions."

WGDSOF2015

www.nailor.com

Performance Data

Models 92LS-SS

Imperial Units

Nominal Module Length (ft)	Slot Length (ft)	Airflow (cfm/ft)	25	30	35	40	45
4	3.646	Airflow (cfm)	91	109	128	146	164
		NC	–	–	–	–	–
		TP	0.029	0.042	0.057	0.074	0.094
		VP	0.004	0.006	0.008	0.011	0.014
		T	1-1-3	1-1-4	1-2-4	1-2-5	1-2-5
6	5.458	Airflow (cfm)	136	164	191	218	246
		NC	–	–	–	–	15
		TP	0.025	0.037	0.050	0.065	0.082
		VP	0.004	0.005	0.007	0.010	0.012
		T	1-1-4	1-2-4	1-2-5	1-2-5	1-2-5
8	7.125	Airflow (cfm)	178	214	249	285	321
		NC	–	–	–	–	16
		TP	0.028	0.040	0.054	0.071	0.090
		VP	0.004	0.006	0.008	0.011	0.013
		T	1-1-4	1-2-5	1-2-6	1-2-6	1-3-6
10	9.125	Airflow (cfm)	228	274	319	365	411
		NC	–	–	–	–	17
		TP	0.031	0.045	0.062	0.081	0.102
		VP	0.005	0.007	0.009	0.012	0.015
		T	1-1-5	1-2-5	1-2-6	1-3-6	1-3-7
12	11.125	Airflow (cfm)	278	334	389	445	501
		NC	–	–	–	15	18
		TP	0.026	0.038	0.052	0.067	0.085
		VP	0.004	0.006	0.008	0.010	0.013
		T	1-2-5	1-2-6	1-3-7	1-3-7	2-3-7
14	13.125	Airflow (cfm)	328	394	459	525	591
		NC	–	–	–	16	19
		TP	0.029	0.042	0.057	0.074	0.094
		VP	0.004	0.006	0.008	0.011	0.014
		T	1-2-5	1-2-6	1-3-7	1-3-7	2-3-7
16	14.792	Airflow (cfm)	370	444	518	592	666
		NC	–	–	–	17	19
		TP	0.027	0.039	0.053	0.069	0.088
		VP	0.004	0.006	0.008	0.010	0.013
		T	1-2-5	1-2-6	1-3-7	1-3-7	2-3-7

CFM - cubic feet per minute

TP - total pressure - inches w.g.

VP - velocity pressure - inches w.g.

T - throw in feet

NC - Noise Criteria (values) based on 10 dB room absorption, re 10⁻¹² watts.

Performance Notes:

1. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2023.
2. Noise Criteria (NC) values based on 10 dB room absorption re 10⁻¹² watts with dampers fully open.
3. Dash (–) in space indicates an NC level of less than 15.
4. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.

Airflow Measurements

1. Take velocity readings at a number of locations along the length of the slot.
2. Total the various readings and divide by the number of readings taken to arrive at an average slot discharge velocity (Vk in FPM).
3. Calculate the airflow (CFM/ft) by multiplying the average velocity by the Ak factor per foot which is 0.078.

$$\text{Airflow (CFM/ft)} = \text{Average Slot Velocity (Vk)} \times \text{Ak}$$

4. Calculate the total airflow (CFM) by multiplying by the actual slot length (ft) shown above.

$$\text{Airflow (CFM)} = \text{Airflow (CFM/ft)} \times \text{Slot Length (ft)}$$

Performance Data

Models 92LS-SS

Metric Units

Nominal Module Length (mm)	Slot Length (m)	Airflow (l/s per m)	38.7	46.4	54.2	61.9	69.7
1219	1.11	Airflow (l/s)	43	51	60	69	77
		NC	–	–	–	–	–
		TP	7	10	14	18	23
		VP	1.0	1.5	2.0	2.7	3.5
		T	0.3-0.3-0.9	0.3-0.3-1.2	0.3-0.6-1.2	0.3-0.6-1.5	0.3-0.6-1.5
1829	1.66	Airflow (l/s)	64	77	90	103	116
		NC	–	–	–	–	15
		TP	6	9	12	16	20
		VP	1.0	1.2	1.7	2.5	3.0
		T	0.3-0.3-1.2	0.3-0.6-1.2	0.3-0.6-1.5	0.3-0.6-1.5	0.3-0.6-1.5
2438	2.17	Airflow (l/s)	84	101	118	134	151
		NC	–	–	–	–	16
		TP	7	10	13	18	22
		VP	1.0	1.5	2.0	2.7	3.2
		T	0.3-0.3-1.2	0.3-0.6-1.5	0.3-0.6-1.8	0.3-0.6-1.8	0.3-0.9-1.8
3048	2.78	Airflow (l/s)	108	129	151	172	194
		NC	–	–	–	–	17
		TP	8	11	15	20	25
		VP	1.2	1.7	2.2	3.0	3.7
		T	0.3-0.3-1.5	0.3-0.6-1.5	0.3-0.6-1.8	0.3-0.9-1.8	0.3-0.9-2.1
3658	3.39	Airflow (l/s)	131	158	184	210	236
		NC	–	–	–	15	18
		TP	6	9	13	17	21
		VP	1.0	1.5	2.0	2.5	3.2
		T	0.3-0.6-1.5	0.3-0.6-1.8	0.3-0.9-2.1	0.3-0.9-2.1	0.6-0.9-2.1
4267	4.00	Airflow (l/s)	155	186	217	248	279
		NC	–	–	–	16	19
		TP	7	10	14	18	23
		VP	1.0	1.5	2.0	2.7	3.5
		T	0.3-0.6-1.5	0.3-0.6-1.8	0.3-0.9-2.1	0.3-0.9-2.1	0.6-0.9-2.1
4677	4.51	Airflow (l/s)	175	209	244	279	314
		NC	–	–	–	17	19
		TP	7	10	13	17	22
		VP	1.0	1.5	2.0	2.5	3.2
		T	0.3-0.6-1.5	0.3-0.6-1.8	0.3-0.9-2.1	0.3-0.9-2.1	0.6-0.9-2.1

L/S - litres per second

TP - total pressure - Pa

VP - velocity pressure - Pa

T - throw in meters

NC - Noise Criteria (values) based on 10 dB room absorption, re 10⁻¹² watts.

Performance Notes:

1. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2023.
2. Noise Criteria (NC) values based on 10 dB room absorption re 10⁻¹² watts with dampers fully open.
3. Dash (–) in space indicates an NC level of less than 15.
4. Throws are given at 0.76, 0.51 and 0.25 m/s terminal velocities under isothermal conditions.

Airflow Measurements

1. Take velocity readings at a number of locations along the length of the slot.
2. Total the various readings and divide by the number of readings taken to arrive at an average slot discharge velocity (V_k in m/s).
3. Calculate the airflow (l/s per m) by multiplying the average velocity by the A_k factor per meter which is 23.8.
Airflow (l/s per m) = Average Slot Velocity (V_k) x A_k.
4. Calculate the total airflow (l/s) by multiplying by the actual slot length (m) shown above.
Airflow (l/s) = Airflow (l/s per m) x Slot Length (m).



HOSPITAL / CLEANROOM DIFFUSERS