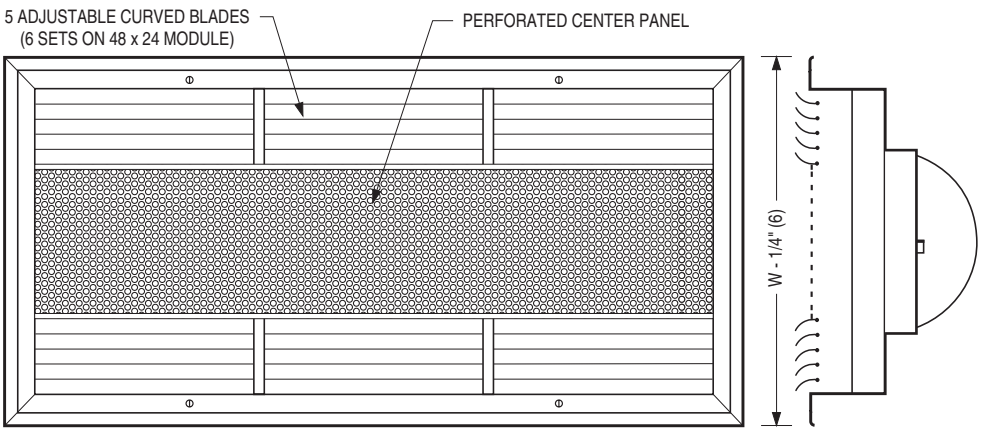
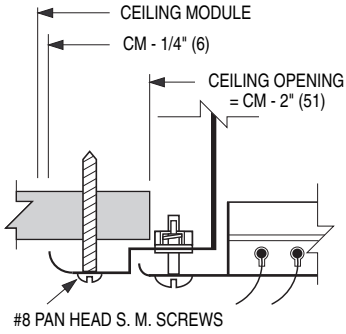
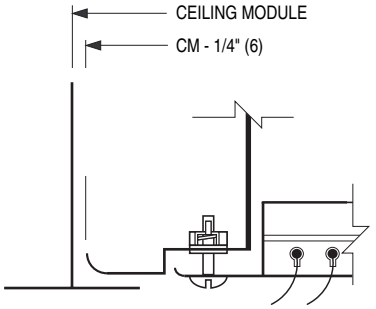
RADIAL PATTERN DIFFUSER
ADJUSTABLE CURVED BLADES AND
PERFORATED PANEL • REMOVABLE FACE
MODEL: 92CBPRP ALUMINUM / STEEL PLENUM



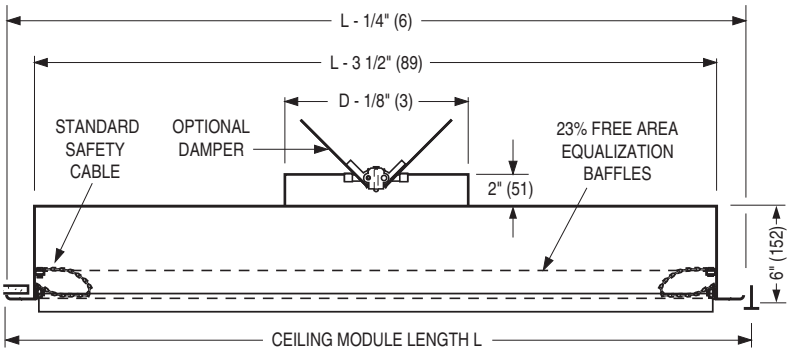
❑ **TYPE S** Surface Mount Detail



❑ **TYPE L*** Lay-in T-Bar Detail



*Compatible with all T-Bars up to 2" (51) wide.



Ceiling Module Sizes L x W & Nom. Round Duct Sizes D

L x W	Imperial Modules (inches)		24 x 24	48 x 24
	Metric Modules (mm)		600 x 600	1200 x 600
	Duct Size D	(inches)	8, 10	10, 12
		(mm)	203, 254	254, 305

DESCRIPTION:

The 92CBPRP has been designed to provide an adjustable radial air pattern for delivering high volumes of low velocity air.

Two sets of individually adjustable curved blade pattern controllers provide field control flexibility and can be set to produce custom, effective directional control with minimum resistance and noise generation. The center perforated panel ensures a controlled blow pattern directly below the diffuser. Internal air baffles in the plenum equalize air flow across the diffuser face.

The hemispherical 180° air pattern provides higher air volumes with much shorter throws than conventional diffusers. Suitable for pharmaceutical manufacturing, biotechnology research, laboratories, food processing and other cleanroom applications.

CONSTRUCTION:

1. Extruded aluminum frame and blades. Steel perforated face with 3/16" (5) dia. holes on 1/4" (6) staggered centers (51% free area). The face panel is removable for cleaning and is secured by 1/4 turn fasteners.
2. Corrosion resistant steel backpan and baffles.
3. Standard safety cables prevent accidental dropping of removable face.
4. Standard finish is AW Appliance White. Other finishes available.

OPTIONS:

Finish:

❑ BA Appliance White face with black backpan and baffles (hides internal components from view).

Damper:

❑ BD Butterfly damper, coated steel, AW Appliance White finish.

Insulation:

❑ EX05 0.5" (13) External Foil-Back Fiberglass Insulation.

❑ EX15 1.5" (38) External Foil-Back Fiberglass Insulation, R-4.2.

❑ Other _____ .

ACCESSORIES:

❑ DFA Aluminum Drywall/Plaster Frame. Provides simple easy installation of Type L in hard ceilings. (See submittal dwg. ACC-DFA). Ordered separately.

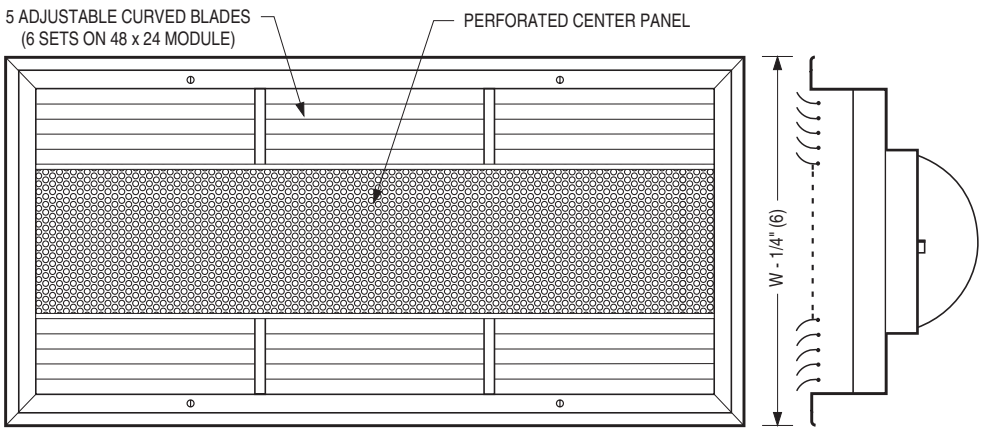
SCHEDULE TYPE	Dimensions are in inches (mm).			
PROJECT				
ENGINEER	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR	**5 - 12 - 22**	**9200**	**10 - 29 - 15**	**92CBPRP**

Nailor Industries Inc.

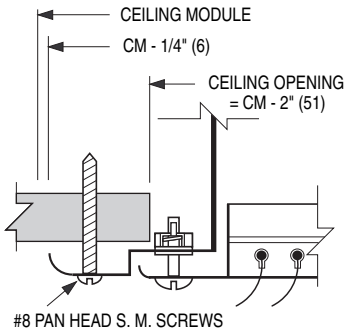
RADIAL PATTERN DIFFUSER

ADJUSTABLE CURVED BLADES AND PERFORATED PANEL • REMOVABLE FACE

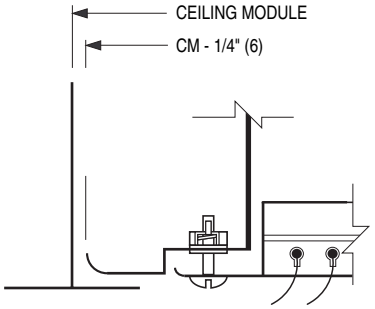
MODEL: 92CBPRP-AL ALUMINUM



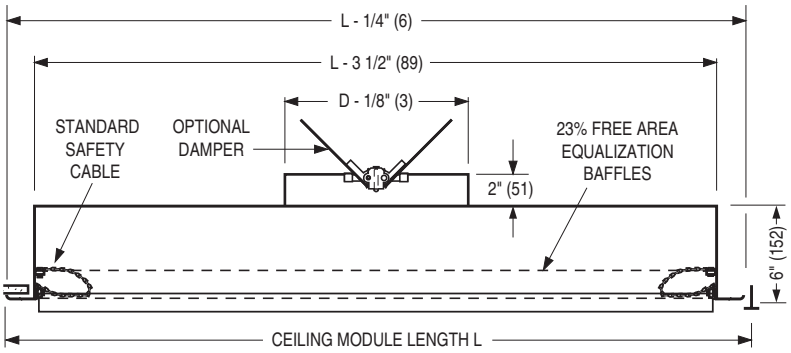
❑ **TYPE S** Surface Mount Detail



❑ **TYPE L*** Lay-in T-Bar Detail



*Compatible with all T-Bars up to 2" (51) wide.



Ceiling Module Sizes L x W & Nom. Round Duct Sizes D

L x W	Imperial Modules (inches)		24 x 24	48 x 24
	Metric Modules (mm)		600 x 600	1200 x 600
	Duct Size D	(inches)	8, 10	10, 12
		(mm)	203, 254	254, 305

DESCRIPTION:

The 92CBPRP has been designed to provide an adjustable radial air pattern for delivering high volumes of low velocity air.

Two sets of individually adjustable curved blade pattern controllers provide field control flexibility and can be set to produce custom, effective directional control with minimum resistance and noise generation. The center perforated panel ensures a controlled blow pattern directly below the diffuser. Internal air baffles in the plenum equalize air flow across the diffuser face.

The hemispherical 180° air pattern provides higher air volumes with much shorter throws than conventional diffusers. Suitable for pharmaceutical manufacturing, biotechnology research, laboratories, food processing and other cleanroom applications.

CONSTRUCTION:

1. Extruded aluminum frame and blades. Aluminum perforated face with 3/16" (5) dia. holes on 1/4" (6) staggered centers (51% free area). The face panel is removable for cleaning and is secured by 1/4 turn fasteners.
2. Aluminum backpan and baffles.
3. Standard safety cables prevent accidental dropping of removable face.
4. Standard finish is AW Appliance White. Other finishes available.

OPTIONS:

Damper:

❑ BD Butterfly damper, coated steel, AW Appliance White finish.

Insulation:

❑ EX05 0.5" (13) External Foil-Back Fiberglass Insulation.

❑ EX15 1.5" (38) External Foil-Back Fiberglass Insulation, R-4.2.

Finish:

❑ BA Appliance White face with black backpan and baffles (hides internal components from view).

❑ Other _____ .

ACCESSORIES:

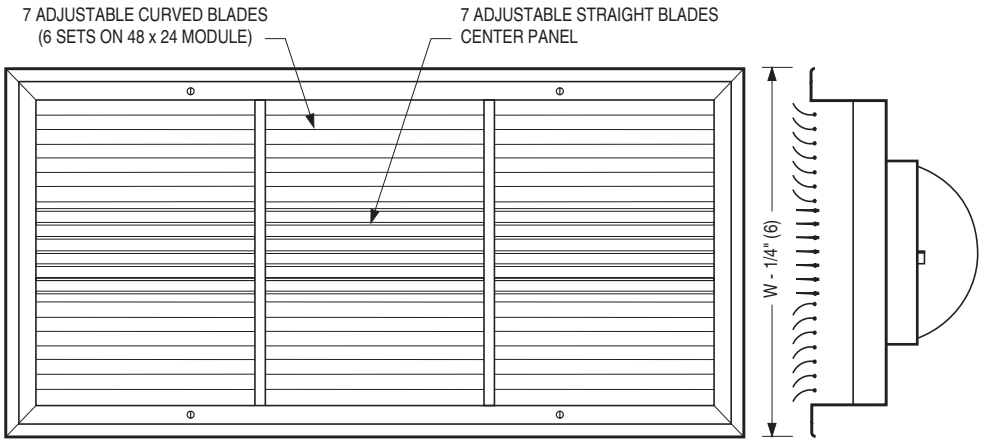
❑ DFA Aluminum Drywall/Plaster Frame. Provides simple easy installation of Type L in hard ceilings. (See submittal dwg. ACC-DFA). Ordered separately.

SCHEDULE TYPE	Dimensions are in inches (mm).			
PROJECT				
ENGINEER	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR	5 - 12 - 22	9200	10 - 29 - 15	92CBPRP-AL

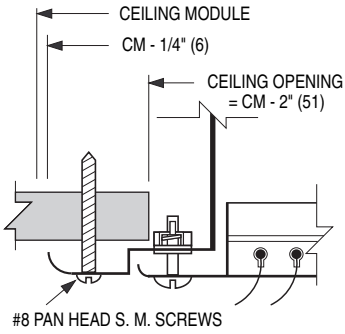
RADIAL PATTERN DIFFUSER

ADJUSTABLE CURVED BLADES AND STRAIGHT BLADE CENTER PANEL • REMOVABLE FACE

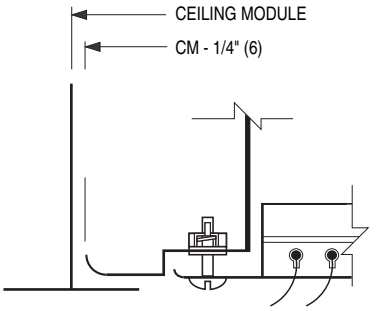
MODEL: 92CBSRP ALUMINUM / STEEL PLENUM



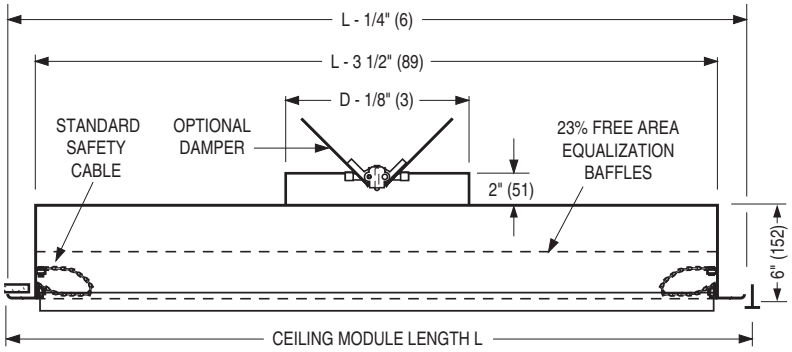
❑ **TYPE S** Surface Mount Detail



❑ **TYPE L*** Lay-in T-Bar Detail



*Compatible with all T-Bars up to 2" (51) wide.



Ceiling Module Sizes L x W & Nom. Round Duct Sizes D

L x W	Imperial Modules (inches)		24 x 24	48 x 24
	Metric Modules (mm)		600 x 600	1200 x 600
	Duct Size D	(inches)	8, 10	10, 12
		(mm)	203, 254	254, 305

DESCRIPTION:

The 92CBSRP has been designed to provide an adjustable radial air pattern for delivering high volumes of low velocity air.

Two sets of individually adjustable curved blade pattern controllers provide field control flexibility and can be set to produce custom, effective directional control with minimum resistance and noise generation. The straight blade center panel permits a controlled blow pattern adjustment directly below the diffuser. Internal air baffles in the plenum equalize air flow across the diffuser face.

The hemispherical 180° air pattern provides higher air volumes with much shorter throws than conventional diffusers. Suitable for pharmaceutical manufacturing, biotechnology research, laboratories, food processing and other cleanroom applications.

CONSTRUCTION:

1. Extruded aluminum frame and blades. The face panel is removable for cleaning and is secured by 1/4 turn fasteners.
2. Corrosion resistant steel.
3. Standard safety cables prevent accidental dropping of removable face.
4. Standard finish is AW Appliance White. Other finishes available.

OPTIONS:

Damper:

❑ BD Butterfly damper, coated steel, AW Appliance White finish.

Insulation:

❑ EX05 0.5" (13) External Foil-Back Fiberglass Insulation.

❑ EX15 1.5" (38) External Foil-Back Fiberglass Insulation, R-4.2.

Finish:

❑ BA Appliance White face with black backpan and baffles (hides internal components from view).

❑ Other _____ .

ACCESSORIES:

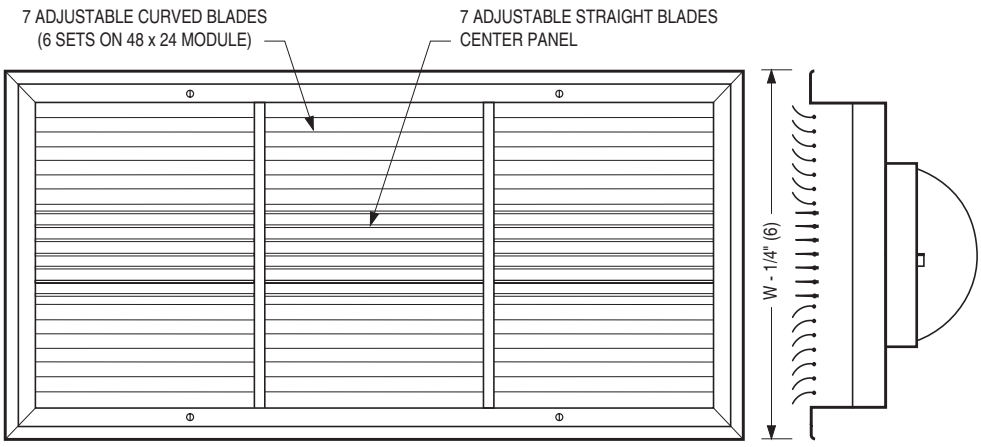
❑ DFA Aluminum Drywall/Plaster Frame. Provides simple easy installation of Type L in hard ceilings. (See submittal dwg. ACC-DFA). Ordered separately.

SCHEDULE TYPE	Dimensions are in inches (mm).			
PROJECT				
ENGINEER	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR	5 - 16 - 22	9200	10 - 29 - 15	92CBSRP

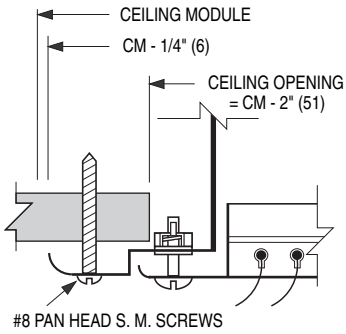
RADIAL PATTERN DIFFUSER

ADJUSTABLE CURVED BLADES AND STRAIGHT BLADE CENTER PANEL • REMOVABLE FACE

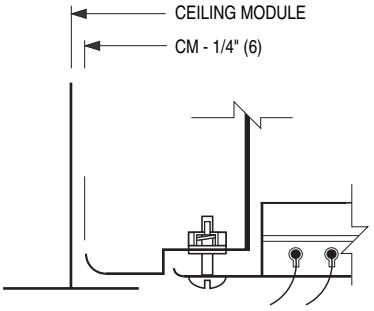
MODEL: 92CBSRP-AL ALUMINUM



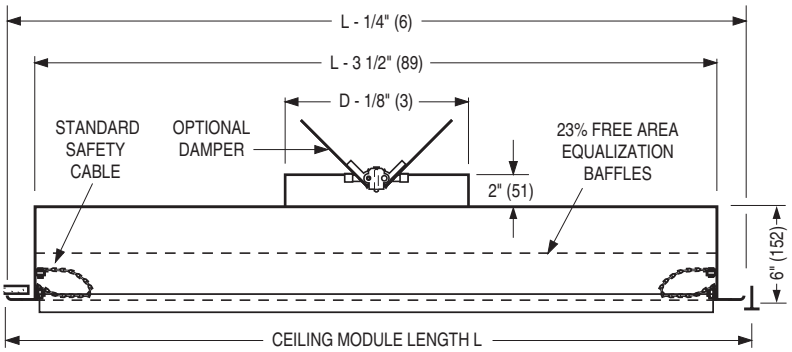
❑ **TYPE S** Surface Mount Detail



❑ **TYPE L*** Lay-in T-Bar Detail



*Compatible with all T-Bars up to 2" (51) wide.



Ceiling Module Sizes L x W & Nom. Round Duct Sizes D

L x W	**Imperial Modules (inches)**		24 x 24	48 x 24
	Metric Modules (mm)		600 x 600	1200 x 600
	Duct Size D	**(inches)**	8, 10	10, 12
		(mm)	203, 254	254, 305

DESCRIPTION:

The 92CBSRP has been designed to provide an adjustable radial air pattern for delivering high volumes of low velocity air.

Two sets of individually adjustable curved blade pattern controllers provide field control flexibility and can be set to produce custom, effective directional control with minimum resistance and noise generation. The straight blade center panel permits a controlled blow pattern adjustment directly below the diffuser. Internal air baffles in the plenum equalize air flow across the diffuser face.

The hemispherical 180° air pattern provides higher air volumes with much shorter throws than conventional diffusers. Suitable for pharmaceutical manufacturing, biotechnology research, laboratories, food processing and other cleanroom applications.

CONSTRUCTION:

1. Extruded aluminum frame and blades. The face panel is removable for cleaning and is secured by 1/4 turn fasteners.
2. Aluminum backpan and baffles.
3. Standard safety cables prevent accidental dropping of removable face.
4. Standard finish is AW Appliance White. Other finishes available.

OPTIONS:

Damper:

❑ BD Butterfly damper, coated steel, AW Appliance White finish.

Insulation:

❑ EX05 0.5" (13) External Foil-Back Fiberglass Insulation.

❑ EX15 1.5" (38) External Foil-Back Fiberglass Insulation, R-4.2.

Finish:

❑ BA Appliance White face with black backpan and baffles (hides internal components from view).

❑ Other _____ .

ACCESSORIES:

❑ DFA Aluminum Drywall/Plaster Frame. Provides simple easy installation of Type L in hard ceilings. (See submittal dwg. ACC-DFA). Ordered separately.

SCHEDULE TYPE	Dimensions are in inches (mm).			
PROJECT				
ENGINEER	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR	**5 - 16 - 22**	**9200**	**10 - 29 - 15**	**92CBSRP-AL**

Nailor Industries Inc.

Standard and Optional Finishes For Grilles and Diffusers

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.

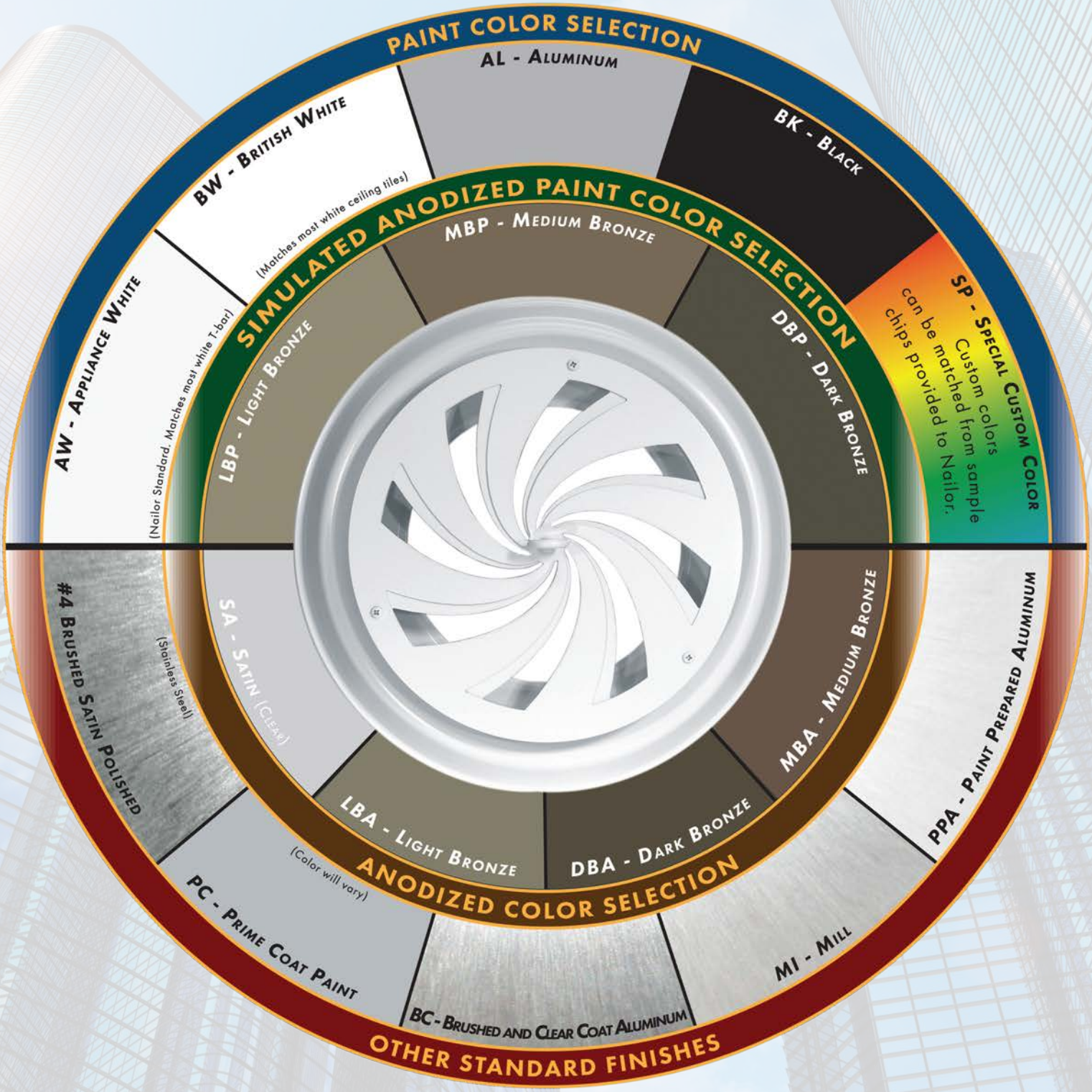
MILL FINISH

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.

Performance Data

Adjustable Radial Pattern Diffusers

Models: 92CBPRP, 92CBPRP-AL • Perforated Center Panel

Module Size and Inlet Size	Airflow cfm	Pt "w.g.	Ps "w.g.	NC	Horizontal Throw (ft)		Vertical Throw (ft)	
					5°ΔT	15°ΔT	5°ΔT	15°ΔT
					100-75-50	100-75-50	100-75-50	100-75-50
24" x 24" 8" Inlet	200	.037	.017	—	1 - 3 - 4	1 - 3 - 4	1 - 4 - 6	3 - 6 - 7
	300	.084	.038	23	1 - 4 - 5	1 - 3 - 5	2 - 5 - 7	4 - 7 - 8
	400	.149	.067	33	1 - 5 - 7	1 - 4 - 6	3 - 6 - 8	5 - 8 - 9
24" x 24" 10" Inlet	300	.045	.026	—	1 - 5 - 6	2 - 3 - 5	2 - 5 - 7	4 - 6 - 8
	400	.080	.047	21	1 - 5 - 7	2 - 5 - 6	2 - 6 - 8	5 - 7 - 9
	600	.181	.106	35	2 - 6 - 9	5 - 7 - 8	3 - 6 - 9	6 - 8 - 9
24" x 48" 10" Inlet	400	.068	.035	21	1 - 2 - 4	3 - 4 - 5	3 - 4 - 6	4 - 6 - 7
	600	.154	.079	32	2 - 4 - 5	2 - 5 - 6	4 - 5 - 7	5 - 7 - 8
	800	.274	.140	42	2 - 5 - 7	3 - 6 - 7	5 - 6 - 7	7 - 8 - 9
24" x 48" 12" Inlet	600	.094	.057	24	2 - 4 - 5	2 - 5 - 6	3 - 5 - 7	4 - 7 - 8
	800	.165	.100	33	2 - 5 - 7	3 - 5 - 7	3 - 6 - 8	5 - 7 - 9
	1000	.258	.157	41	3 - 5 - 8	4 - 6 - 9	4 - 7 - 9	6 - 8 - 10

Models: 92CBSRP, 92CBSRP-AL • Straight Blade Center Panel

Module Size and Inlet Size	Airflow cfm	Pt "w.g.	Ps "w.g.	NC	Horizontal Throw (ft)		Vertical Throw (ft)	
					5°ΔT	15°ΔT	5°ΔT	15°ΔT
					100-75-50	100-75-50	100-75-50	100-75-50
24" x 24" 8" Inlet	200	.035	.015	—	1 - 2 - 3	1 - 2 - 3	1 - 5 - 7	2 - 6 - 8
	300	.079	.033	22	2 - 3 - 4	2 - 3 - 3	2 - 6 - 7	2 - 7 - 8
	400	.140	.058	32	2 - 3 - 5	2 - 3 - 4	3 - 7 - 8	3 - 8 - 9
24" x 24" 10" Inlet	300	.043	.024	—	2 - 3 - 4	2 - 3 - 3	2 - 6 - 7	2 - 7 - 8
	400	.076	.043	20	2 - 3 - 5	2 - 3 - 4	3 - 7 - 8	3 - 8 - 9
	600	.172	.097	34	3 - 4 - 7	3 - 4 - 5	3 - 7 - 9	4 - 9 - 10
24" x 48" 10" Inlet	400	.064	.031	—	2 - 4 - 5	3 - 5 - 6	2 - 3 - 5	4 - 6 - 7
	600	.144	.069	30	3 - 5 - 6	4 - 6 - 7	2 - 5 - 7	5 - 7 - 8
	800	.256	.122	40	5 - 6 - 7	6 - 7 - 8	3 - 6 - 8	6 - 8 - 9
24" x 48" 12" Inlet	600	.086	.049	22	3 - 5 - 6	4 - 6 - 7	2 - 6 - 7	5 - 7 - 8
	800	.154	.089	31	5 - 6 - 7	6 - 7 - 8	3 - 6 - 8	6 - 8 - 9
	1000	.240	.139	39	6 - 7 - 8	7 - 8 - 9	3 - 7 - 8	5 - 8 - 10

Performance Notes:

1. Throw values are given for terminal velocities of 100, 75 and 50 fpm.
2. Vertical throw is the furthest distance below the ceiling where the indicated terminal velocity can be measured.
3. ΔT is the cooling temperature differential between supply and room air.
4. NC (Noise Criteria) values based on 10 dB room absorption, re 10^{-12} watts. Dash (–) in space indicates an NC level of less than 20.
5. Data derived from tests were conducted in accordance with ANSI/ASHRAE Standard 70 - 2023.