

A large, colorful stack of various types and colors of louvers (ventilation grilles) is arranged in a pyramid-like shape against a blue sky with white clouds. The louvers are made of different materials and colors, including green, blue, red, orange, and silver. In the foreground, the word 'LOUVERS' is written in large, bold, yellow capital letters.

LOUVERS

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Catalog December 2010.

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GENERAL PRODUCT OVERVIEW

At Nailor Industries, we've been manufacturing premium quality air control products for over thirty years. We've learned a lot since producing our first device and have incorporated that knowledge into the latest designs and production techniques that are offered today. Designed and engineered to meet the most demanding specifications, **Nailor's 1600 Series Extruded Aluminum Louvers** combine architecturally enhancing aesthetics with excellent performance characteristics. Nailor's 1700 Series Formed Steel Louvers are a competitively priced option for metal buildings and when low first cost is a priority. So go ahead and take advantage of our experience and dedication to quality engineering and customer satisfaction.

Features & Benefits of Nailor 1600 Series Louvers:

- Nailor offers a wide variety of blade styles to meet mechanical system requirements and architectural design criteria.
- Extruded aluminum blades and frames for high durability and quality fit and finish.
- Reinforcing bosses run the full length of each blade for superior strength.
- Stainless Steel 'High-Grip' fasteners: All Nailor louvers are precision assembled using stainless steel concealed fasteners. Optional fully welded construction available.
- Low pressure drop characteristics require less fan energy and contribute to efficient system operation.
- Drainable Head is standard on many models for maximum protection against water running down the building face.
- Integral caulking slots on all frames to help ensure tight and tidy installation.
- Vast selection of finishes and colors.

AMCA International Member

Nailor Industries is an active member of the Air Movement and Control Association International (AMCA) which provides standardized test criteria for air control devices. In addition, AMCA also offers a Certified Ratings Program which provides assurance that cataloged performance ratings are reliable and accurate. Only products whose ratings are based on tests performed in accordance with AMCA recognized test methods at the AMCA Testing Laboratory or an AMCA Accredited Laboratory, and adhere to the Certified Ratings Program criteria, can be licensed to use the Certified Ratings Seal.

EXTRUDED ALUMINUM STANDARD J BLADE LOUVERS

Nailor Models 1602J, 1604J and 1606J Standard Blade type louvers feature an architecturally appealing continuous straight blade design (often referred to as a J-style blade) with smooth, clean lines that visually compliment any structure's exterior styling. Available in channel or optional flanged type, the 2" (51), 4" (102) or 6" (152) deep frame installs easily in most common wall configurations. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides reasonable protection against general weather conditions. The models exhibit low pressure drop characteristics and a high free area. Reinforcing bosses run the full length of each blade for superior strength. Nailor Standard Blade type louvers are engineered to be architecturally appealing as well as mechanically enduring.

Models 1604JD and 1606JD feature a drainable head for improved weather protection.



GENERAL PRODUCT OVERVIEW

STANDARD K BLADE LOUVERS

Nailor Models 1602K, 1604KD and 1606KD K Blade (formerly Storm Resistant) louvers combine excellent weather protection and performance with aesthetics that compliment any architecture. Available in channel or optional flanged type, the 2" (51), 4" (102) or 6" (152) deep frame installs easily in most common wall configurations. Models 1604KD and 1606KD feature a drainable head design that collects and channels away the water running down the building face, thus preventing it from entering the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle plus an additional center rain hook, providing excellent protection against foul weather conditions. Blades are reinforced with full length integral bosses for superior strength and are engineered to provide minimal resistance at higher airflows. Nailor Storm Resistant louvers are designed to endure as well as provide solid weather protection.



WIND DRIVEN RAIN RESISTANT LOUVERS

Nailor Models 1605WD, 1608DD and 1606HR (in development) Wind Driven Rain drainable louvers are designed and tested to provide maximum protection against water penetration in storm conditions. Models 1605WD and 1606HR feature blade designs with multiple water baffles and rain gutters that divert collected water down concealed side downspouts and out the sill pan. Model 1606VR (in development) utilizes vertical blades with central and rear rain baffles that provide the ultimate in protection against wind driven rain. Collected water is allowed to drain through sill holes and out the sill pan. All models feature blades reinforced with full length integral bosses for superior strength and provide "no-see-through" protection from the elements.

DRAINABLE BLADE LOUVERS

Nailor Models 1604D and 1606D Drainable blade and 1606DD Dual Drainable blade louvers combine maximum weather protection at higher airflow rates with good air performance and pleasing aesthetics that compliment any structure's exterior styling. Available in channel or optional flanged type, the 4" (102) or 6" (152) deep frame installs easily in most common wall configurations. Standard construction features a drainable head design that collects and channels away the water running down the building face, thus preventing it from entering the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the drainable blade design utilizes single or double rain gutters dependent on model that divert collected water down concealed side downspouts and out the sill. Blades are reinforced with full length integral bosses for superior strength and are engineered to provide excellent air performance throughout the full airflow range.



GENERAL PRODUCT OVERVIEW

COMBINATION DRAINABLE / OPERABLE BLADE LOUVERS

Nailor Model 1606CDAF Combination Operable/Drainable Blade type louver combines superior weather protection and fixed-blade aesthetics with airflow control including tight shut-off. Suitable for use in exhaust and low to medium velocity intake applications, the design features dual drainable fixed blades with double rain gutters that divert collected water down concealed side downspouts and out the sill. Rear operable blades feature PVC blade edge seals for tight shut-off and can be operated manually or with an actuator. Blades are reinforced with full length integral bosses for superior strength and the design exhibits low pressure drop characteristics throughout the airflow range. Model 1606CDFAF provides operable flexibility as well as maximum protection from the elements.



HURRICANE LOUVERS (in development)

Nailor Hurricane louvers are subjected to stringent testing for water penetration and structural integrity as dictated by the Miami-Dade County Building Code Compliance Office. They are designed to withstand the severe winds and rain associated with hurricane type storms common to the area. Model 1606DMD features fixed, single drainable blades and is approved for Wet, Open Structure protection (TAS-201, TAS-202 and TAS-203). Model 1606DCMD features operable rear airfoil blades behind a fixed standard blade type louver and is approved for Dry, Closed Structure protection (TAS-201, TAS-202, TAS-203 and TAS-100A). Both models have been tested to withstand static and cyclical design wind loadings of up to 160 psf. and can prevent penetration of both large and small missiles. Nailor hurricane louvers are engineered to offer design flexibility as well as maximum protection.

SELECTION & SIZING

APPLICATION GUIDE

Selection of a louver for a specific application is determined by many variables including aesthetic requirements, wall type/depth, pressure loss criteria and water penetration criteria. After determining the relative importance of each variable, a louver style and model can be selected by comparing individual design details and performance data, all included within this catalog.

Use the following Application Guide to assist in determining the appropriate louver type for your application:

LOUVER TYPE	APPLICATION
J Blade	Clean aesthetics • Reasonable weather protection • Suitable for Continuous Blade construction • For exhaust and low to medium velocity intake applications
K Blade	Good weather protection • Suitable for Continuous Blade construction • For exhaust and low to medium velocity intake applications
Dual Drainable Blade	Excellent weather protection • For exhaust and medium to high velocity intake applications • Continuous Blade construction not recommended due to watershedding requirements
Wind Driven Rain Resistant (Drainable)	Maximum weather protection • For exhaust and higher intake velocities in extreme weather applications • Continuous Blade construction not recommended due to watershedding requirements • Sight-proof design
Combination Drainable/Operable Blade	Excellent weather protection • Ideal for airflow control or tight shut-off • For exhaust and low to medium velocity intake applications
Hurricane Louvers	Maximum weather protection for severe storm applications • Miami-Dade County Approved for static and cyclical design wind loadings up to 160 psf. as well as large and small missile penetration prevention

HOW TO SIZE LOUVERS

The prime factor involved in sizing a louver is the velocity of the air through its free area. The free area is the actual unobstructed area of a louver through which air can travel. Other factors such as pressure drop and amount of water penetration are dependent upon the free area velocity and can be determined by using the respective performance charts provided for each specific louver model.

1. SELECT MODEL:

Choose the louver model that is best suited for the specific application. Use the Application Guide and 'Quick-Select' Model Guide to assist in making a selection, if so desired.

2. SELECT FREE AREA VELOCITY:

Select optimum free area velocity for the specific application checking Pressure Drop and Water Penetration charts for acceptable performance. For 'exhaust only' applications, water penetration data generally does not need to be considered. For extra weather protection, select a free air velocity that is below the beginning point of water penetration.

3. DETERMINE REQUIRED LOUVER FREE AREA:

Divide given AIRFLOW (cfm) by the selected FREE AREA VELOCITY (fpm) to determine the required louver free area. Using the Free Area Chart for the specific louver model chosen, select a louver size that provides the required Free Area. If, in the application, the louver size is given, the maximum practical airflow can be determined by working backwards from the free area chart.

See sizing examples on next page.

SIZING EXAMPLES:**Example A:****AIRFLOW GIVEN; DETERMINE LOUVER SIZE**

- Determine required louver free area by dividing AIRFLOW by acceptable FREE AREA VELOCITY (Use performance charts to assist in selecting Free Area Velocity):
 $\text{_____ cfm} \div \text{_____ fpm} = \text{_____ sq. ft. Free Area.}$
- Using the Free Area Chart for chosen model, select a louver size with at least the required free area:
 $\text{_____ wide} \times \text{_____ high} = \text{_____ sq. ft. Free Area.}$

Example B:**LOUVER SIZE GIVEN; DETERMINE MAX. AIRFLOW**

- Given louver size _____ W x _____ H. Use the Free Area Chart for chosen model to determine free area.
- Multiply FREE AREA x acceptable FREE AREA VELOCITY to determine maximum airflow:
 $\text{_____ sq. ft.} \times \text{_____ fpm} = \text{_____ cfm max. airflow.}$
- Using the Pressure Drop Chart for chosen model, check the pressure drop at the determined airflow rate and resulting free area velocity.

'QUICK-SELECT' MODEL GUIDE

Data shown is for 48" x 48" (1219 x 1219) louver size.

MODEL	FREE AREA %	FREE AREA ft. ² (m ²)	MAX. RECOMMENDED FREE AREA INTAKE VELOCITY	MAX. RECOMMENDED AIRFLOW THROUGH FREE AREA	PRESSURE DROP @ MAX. RECOMMENDED AIRFLOW
1602J	47%	7.50 (0.70)	527 fpm (161 m/min.)	3952 cfm (1865 l/s)	0.04 in. w.g. (10 Pa)
1604J	54%	8.62 (0.80)	722 fpm (220 m/min.)	6224 cfm (2937 l/s)	0.09 in. w.g. (22 Pa)
1606J	51%	8.13 (0.76)	1029 fpm (314 m/min.)	8366 cfm (3948 l/s)	0.13 in. w.g. (32 Pa)
1604JD	54%	8.57 (0.80)	961 fpm (293 m/min.)	8236 cfm (3887 l/s)	0.16 in. w.g. (40 Pa)
1606JD	48%	8.13 (0.76)	1121 fpm (341 m/min.)	9114 cfm (4301 l/s)	0.15 in. w.g. (37 Pa)
1602K	47%	7.55 (0.70)	401 fpm (122 m/min.)	3028 cfm (1429 l/s)	0.02 in. w.g. (5 Pa)
1604KD	47%	7.51 (0.70)	892 fpm (272 m/min.)	6699 cfm (3161 l/s)	0.11 in. w.g. (27 Pa)
1606KD	50%	7.93 (0.74)	1017 fpm (310 m/min.)	8065 cfm (3806 l/s)	0.14 in. w.g. (35 Pa)
1604D	52%	8.26 (0.77)	852 fpm (260 m/min.)	7038 cfm (3321 l/s)	0.13 in. w.g. (32 Pa)
1606D	52%	8.32 (0.77)	1012 fpm (308 m/min.)	8420 cfm (3973 l/s)	0.13 in. w.g. (32 Pa)
1604DD	51%	8.14 (0.76)	1000 fpm (305 m/min.)	8140 cfm (3841 l/s)	0.16 in. w.g. (40 Pa)
1606DD	50%	7.92 (0.74)	1193 fpm (364 m/min.)	9449 cfm (4459 l/s)	0.18 in. w.g. (45 Pa)
1605WD	54%	8.64 (0.80)	1025 fpm (312 m/min.)	8856 cfm (4179 l/s)	0.32 in. w.g. (80 Pa)
1604AD	44%	7.10 (0.66)	953 fpm (290 m/min.)	6766 cfm (3193 l/s)	0.21 in. w.g. (52 Pa)
1606AD	51%	8.15 (0.76)	970 fpm (296 m/min.)	7906 cfm (3731 l/s)	0.17 in. w.g. (42 Pa)
1606CDAF	43%	6.89 (0.64)	1142 fpm (348 m/min.)	7868 cfm (3713 l/s)	0.19 in. w.g. (47 Pa)
1612QS	30%	4.79 (0.45)	977 fpm (298 m/min.)	4680 cfm (2208 l/s)	0.12 in. w.g. (29.8 Pa)
1704J	53%	8.53 (0.79)	869 fpm (265 m/min.)	7413 cfm (3498 l/s)	0.13 in. w.g. (32 Pa)
1704JD	52%	8.29 (0.77)	937 fpm (286 m/min.)	7768 cfm (3666 l/s)	0.16 in. w.g. (40 Pa)
1706J	53%	8.53 (0.79)	938 fpm (286 m/min.)	8001 cfm (3776 l/s)	0.15 in. w.g. (37 Pa)
1706JD	52%	8.29 (0.77)	1029 fpm (314 m/min.)	8530 cfm (4025 l/s)	0.19 in. w.g. (47 Pa)
1704D	53%	8.44 (0.78)	976 fpm (297 m/min.)	8237 cfm (3887 l/s)	0.14 in. w.g. (35 Pa)
1704DHP	53%	8.55 (0.76)	896 fpm (273 m/min.)	7661 cfm (3615 l/s)	0.14 in. w.g. (35 Pa)
1706D	50%	8.05 (0.75)	847 fpm (258 m/min.)	6818 cfm (3217 l/s)	0.12 in. w.g. (30 Pa)
1706DHP	56%	9.05 (0.84)	988 fpm (301 m/min.)	8941 cfm (4219 l/s)	0.16 in. w.g. (40 Pa)
1704AD	50%	8.03 (0.75)	991 fpm (302 m/min.)	7958 cfm (3756 l/s)	0.11 in. w.g. (27 Pa)
1706AD	55%	8.80 (0.82)	977 fpm (298 m/min.)	8598 cfm (4057 l/s)	0.10 in. w.g. (25 Pa)

Note:

MAXIMUM RECOMMENDED FREE AREA VELOCITY and MAXIMUM RECOMMENDED AIRFLOW THROUGH FREE AREA are determined by point of water penetration at .01 oz./ft.² (3 ml/m²).

To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is below the point of beginning water penetration.



EXTRUDED ALUMINUM STATIONARY LOUVER 2" (51) DEEP • J BLADE • ARCHITECTURAL MODEL: 1602J (1602SB)

Model 1602J, incorporating J style blades, is an architecturally styled 2" (51) deep louver designed with smooth, clean lines that visually compliment any structure's exterior styling. It is ideal for use in thin wall applications or a/c units where a full depth louver cannot be used. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics. Reinforcing bosses run the full length of each blade for superior strength. Available with channel or flanged type frame, the 1602J's thinline design is styled to appear and engineered to perform.

STANDARD CONSTRUCTION:

FRAME: 2" (51) deep, Type 6063-T5 extruded aluminum, .060" (1.5) nominal wall thickness. Integral caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .060" (1.5) nominal wall thickness, with reinforcing bosses. J style.

BLADE ANGLE: Fixed at 30 degrees.

BLADE SPACING: Approximately 2" (51) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed architectural style allowing continuous line appearance.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 8" W x 8" H (203 x 203).

MAXIMUM SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

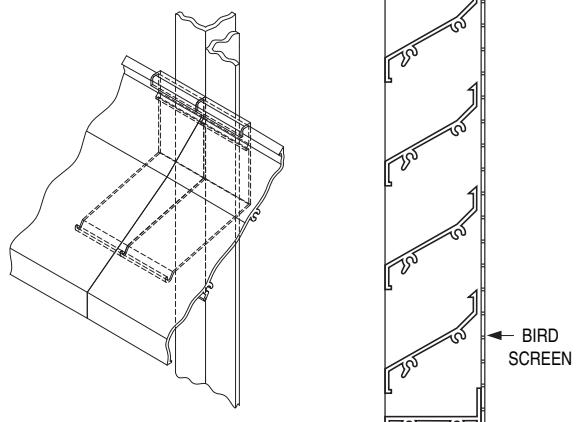
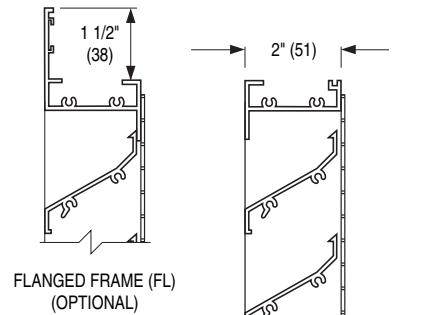
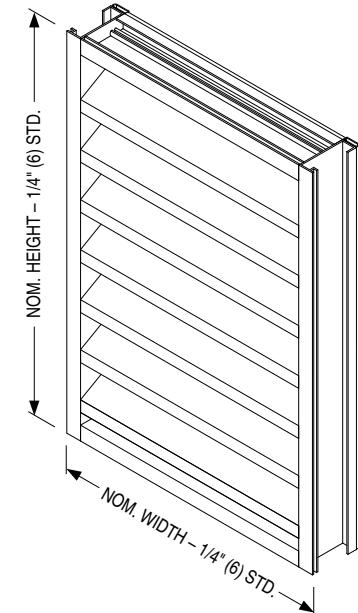
- | | |
|--------------------------------------|--|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

Color Anodized:

- | | | | |
|--------------------------------------|---------------|--------------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |

SCHEDULE TYPE:
PROJECT:
ENGINEER:
CONTRACTOR:


ARCHITECTURAL STYLE
CONCEALED MULLION DETAIL

Page 1 of 2

Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
12 - 1 - 10	1600	1602SB-1 9 - 22 - 03R	1602J



**EXTRUDED ALUMINUM STATIONARY LOUVER
2" (51) DEEP • J BLADE • ARCHITECTURAL
PERFORMANCE DATA
MODEL: 1602J (1602SB)**

FREE AREA in Square Feet and Square Meters

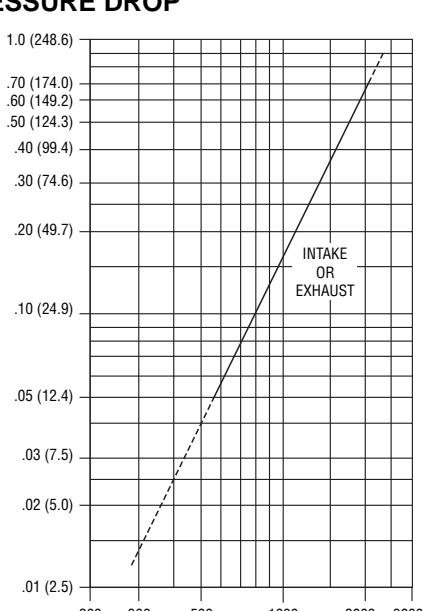
	Height in Inches and Meters	Width in Inches and Meters																			
		8 0.20	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
	8	0.12	0.19	0.30	0.41	0.53	0.64	0.75	0.86	0.97	1.08	1.19	1.30	1.42	1.53	1.64	1.75	1.86	1.97	2.09	2.20
	0.20	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.19	0.20
	12	0.21	0.33	0.52	0.71	0.90	1.09	1.28	1.47	1.66	1.85	2.03	2.22	2.41	2.60	2.79	2.98	3.17	3.36	3.55	3.74
	0.30	0.02	0.03	0.04	0.06	0.08	0.10	0.11	0.13	0.15	0.17	0.18	0.20	0.22	0.24	0.26	0.27	0.29	0.31	0.33	0.35
	18	0.33	0.54	0.84	1.15	1.46	1.77	2.08	2.39	2.69	3.00	3.31	3.62	3.93	4.24	4.55	4.85	5.16	5.47	5.78	6.09
	0.46	0.03	0.05	0.07	0.10	0.13	0.16	0.19	0.22	0.25	0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.48	0.51	0.54	0.57
	24	0.48	0.77	1.21	1.65	2.09	2.53	2.98	3.42	3.86	4.30	4.74	5.18	5.63	6.07	6.51	6.95	7.39	7.83	8.27	8.72
	0.61	0.04	0.07	0.11	0.15	0.19	0.23	0.27	0.31	0.35	0.40	0.44	0.48	0.52	0.56	0.60	0.64	0.69	0.73	0.77	0.81
	30	0.64	1.03	1.62	2.21	2.80	3.39	3.98	4.57	5.16	5.75	6.33	6.92	7.51	8.10	8.69	9.28	9.87	10.45	11.04	11.63
	0.76	0.06	0.09	0.15	0.20	0.26	0.31	0.37	0.42	0.47	0.53	0.58	0.64	0.69	0.75	0.80	0.86	0.92	0.97	1.03	1.08
	36	0.77	1.24	1.94	2.65	3.36	4.07	4.78	5.49	6.19	6.90	7.61	8.32	9.03	9.74	10.45	11.15	11.86	12.57	13.28	13.99
	0.36	0.07	0.11	0.18	0.24	0.31	0.37	0.44	0.51	0.57	0.64	0.70	0.77	0.83	0.90	0.97	1.04	1.10	1.17	1.23	1.30
	42	0.90	1.44	2.27	3.10	3.92	4.75	5.58	6.41	7.23	8.06	8.89	9.72	10.54	11.37	12.10	13.02	13.85	14.68	15.50	16.33
	1.07	0.08	0.13	0.21	0.28	0.36	0.44	0.51	0.59	0.67	0.74	0.82	0.90	0.98	1.05	1.13	1.21	1.29	1.36	1.44	1.52
	48	1.04	1.67	2.62	3.58	4.54	5.49	6.45	7.50	8.36	9.31	10.27	11.23	12.18	13.14	14.09	15.05	16.00	16.96	17.92	18.87
	1.22	0.10	0.15	0.24	0.33	0.42	0.51	0.59	0.70	0.77	0.86	0.95	1.04	1.13	1.22	1.31	1.40	1.49	1.58	1.66	1.75
	54	1.20	1.94	3.04	4.15	5.26	6.37	7.48	8.59	9.69	10.80	11.91	13.02	14.13	15.24	16.35	17.45	18.56	19.67	20.78	21.89
	1.37	0.11	0.18	0.28	0.38	0.48	0.59	0.69	0.79	0.90	1.00	1.10	1.21	1.31	1.41	1.51	1.62	1.72	1.83	1.93	2.03
	60	1.33	2.14	3.37	4.60	5.82	7.05	8.28	9.51	10.73	11.96	13.19	14.42	15.64	16.87	18.10	19.32	20.55	21.78	23.00	24.23
	1.52	0.12	0.20	0.31	0.42	0.54	0.65	0.77	0.88	0.99	1.11	1.22	1.34	1.45	1.56	1.68	1.79	1.91	2.02	2.14	2.25
	66	1.46	2.35	3.70	5.04	6.39	7.73	9.08	10.43	11.77	13.12	14.46	15.81	17.16	18.50	19.85	21.19	22.54	23.89	25.23	26.58
	1.68	0.14	0.21	0.34	0.46	0.59	0.71	0.84	0.96	1.09	1.21	1.34	1.46	1.59	1.71	1.84	1.97	2.09	2.22	2.34	2.47
	72	1.59	2.57	4.04	5.51	6.98	8.45	9.92	11.39	12.86	14.33	15.80	17.27	18.74	20.21	21.68	23.15	24.62	26.09	27.56	29.03
	1.83	0.15	0.23	0.37	0.51	0.64	0.78	0.92	1.05	1.19	1.33	1.46	1.60	1.74	1.87	2.01	2.15	2.29	2.42	2.56	2.70
	78	1.76	2.84	4.47	6.10	7.72	9.35	10.98	12.61	14.23	15.86	17.49	19.12	20.74	22.37	24.00	25.62	27.25	28.88	30.51	32.13
	1.98	0.16	0.26	0.41	0.56	0.71	0.86	1.02	1.17	1.32	1.47	1.62	1.77	1.92	2.07	2.23	2.38	2.53	2.68	2.83	2.98
	84	1.89	3.05	4.80	6.54	8.29	10.03	11.78	13.53	15.27	17.02	18.76	20.51	22.26	24.00	25.75	27.49	29.24	30.98	32.73	34.47
	2.13	0.18	0.28	0.44	0.60	0.77	0.93	1.09	1.25	1.41	1.58	1.74	1.90	2.06	2.23	2.39	2.55	2.72	2.88	3.04	3.20
	90	2.02	3.26	5.12	6.99	8.85	10.72	12.58	14.45	16.31	18.18	20.04	21.91	23.77	25.64	27.50	29.36	31.23	33.09	34.96	36.82
	2.29	0.19	0.30	0.47	0.65	0.82	0.99	1.16	1.34	1.51	1.68	1.86	2.03	2.20	2.38	2.55	2.73	2.90	3.07	3.25	3.42
	96	2.15	3.47	5.45	7.44	9.42	11.41	13.39	15.37	17.36	19.34	21.33	23.31	25.30	27.28	29.26	31.25	33.23	35.21	37.19	39.18
	2.44	0.20	0.32	0.50	0.69	0.87	1.06	1.24	1.42	1.61	1.79	1.98	2.16	2.35	2.53	2.71	2.90	3.09	3.27	3.45	3.64

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

INTAKE K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	527 fpm (161 m/min.)
	Air Volume at 527 fpm	3952 cfm (1865 l/s)
	Free Area Velocity	.04 in. w.g. (10 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

Static Pressure Drop in Inches w.g. (Pa)



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	12 - 1 - 10	1600	1602SB-2 9 - 17 - 03R	1602J



EXTRUDED ALUMINUM STATIONARY LOUVER 4" (102) DEEP • J BLADE • ARCHITECTURAL MODEL: 1604J

Model 1604J, J style blade type, is an architecturally styled 4" (102) deep louver designed with smooth, clean lines that visually compliment any structure's exterior styling. Available in channel or flanged type, the 4" (102) deep frame installs easily in most common wall configurations. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics and a high free area. Reinforcing bosses run the full length of each blade for superior strength.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses. J style.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 4" (102) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed architectural style allowing continuous line appearance.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

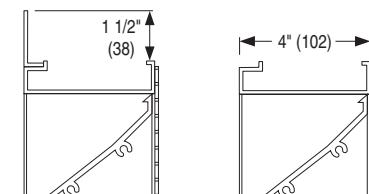
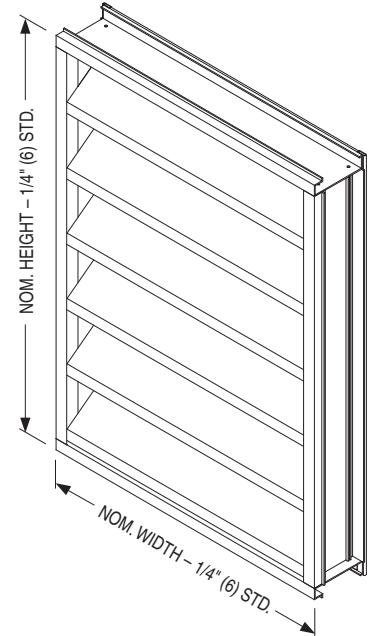
- | | |
|--------------------------------------|---|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

Color Anodized:

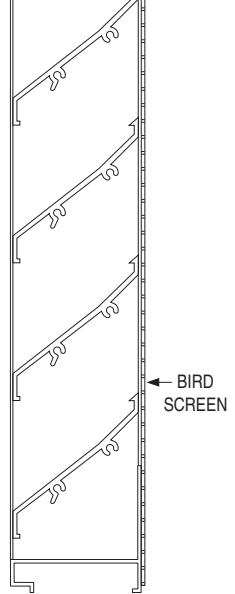
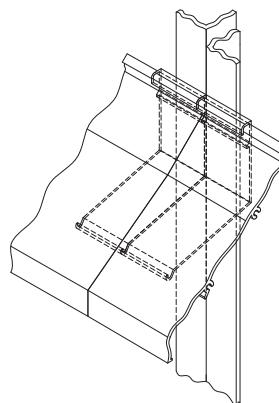
- | | | | |
|--------------------------------------|---------------|--------------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |



FLANGED FRAME (FL)
(OPTIONAL)



ARCHITECTURAL STYLE
CONCEALED MULLION DETAIL

Page 1 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	12 - 1 - 10	1600	NEW	1604J



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • J BLADE • ARCHITECTURAL
PERFORMANCE DATA
MODEL: 1604J**

FREE AREA in Square Feet and Square Meters

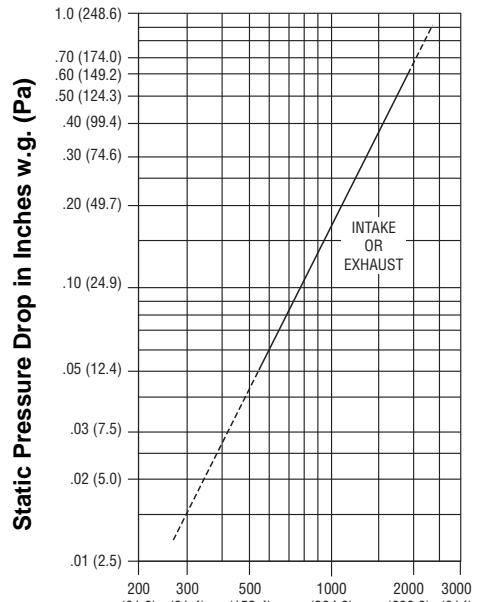
Height in Inches and Meters	Width in Inches and Meters																		
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
12 .30	0.25 0.02	0.39 0.03	0.54 0.05	0.69 0.06	0.84 0.07	0.99 0.09	1.14 0.10	1.29 0.12	1.44 0.13	1.59 0.14	1.74 0.16	1.89 0.17	2.04 0.19	2.19 0.20	2.34 0.21	2.49 0.22	2.64 0.25	2.79 0.26	2.94 0.27
18 .46	0.52 0.05	0.83 0.07	1.14 0.10	1.46 0.13	1.77 0.16	2.09 0.19	2.40 0.22	2.71 0.25	3.03 0.28	3.34 0.31	3.65 0.34	3.97 0.36	4.28 0.39	4.59 0.42	4.91 0.45	5.22 0.49	5.53 0.51	5.85 0.54	6.16 0.57
24 .61	0.80 0.07	1.28 0.12	1.77 0.16	2.25 0.21	2.73 0.25	3.22 0.29	3.70 0.34	4.19 0.38	4.67 0.43	5.15 0.47	5.64 0.52	6.12 0.56	6.60 0.61	7.09 0.65	7.57 0.70	8.05 0.75	8.54 0.79	9.02 0.84	9.50 0.88
30 .76	1.04 0.09	1.67 0.15	2.30 0.21	2.93 0.27	3.56 0.33	4.19 0.39	4.82 0.44	5.45 0.50	6.08 0.56	6.71 0.62	7.34 0.68	7.97 0.74	8.60 0.79	9.23 0.85	9.86 0.91	10.49 0.98	11.12 1.03	11.75 1.09	12.38 1.15
36 .91	1.33 0.12	2.13 0.19	2.93 0.27	3.73 0.34	4.53 0.42	5.33 0.49	6.13 0.57	6.93 0.64	7.73 0.71	8.53 0.79	9.33 0.86	10.13 0.94	10.93 1.01	11.73 1.09	12.53 1.16	13.33 1.24	14.13 1.31	14.93 1.39	15.73 1.46
42 1.07	1.58 0.14	2.52 0.23	3.47 0.32	4.42 0.41	5.37 0.49	6.32 0.58	7.27 0.67	8.22 0.76	9.16 0.85	10.11 0.94	11.06 1.02	12.01 1.11	12.96 1.20	13.91 1.29	14.86 1.38	15.81 1.47	16.76 1.56	17.71 1.65	18.66 1.73
48 1.22	1.85 0.17	2.97 0.27	4.09 0.38	5.20 0.48	6.32 0.58	7.43 0.69	8.62 0.80	9.66 0.89	10.78 1.00	11.89 1.10	13.01 1.20	14.12 1.31	15.24 1.41	16.35 1.52	17.47 1.62	18.58 1.73	19.70 1.83	20.81 1.93	21.93 2.04
54 1.37	2.11 0.19	3.38 0.31	4.64 0.43	5.91 0.54	7.18 0.66	8.44 0.78	9.71 0.90	10.98 1.02	12.25 1.13	13.51 1.25	14.78 1.37	16.05 1.49	17.32 1.60	18.58 1.72	19.85 1.84	21.12 1.96	22.38 2.08	23.64 2.20	24.91 2.32
60 1.52	2.38 0.22	3.81 0.35	5.25 0.48	6.68 0.62	8.11 0.75	9.54 0.88	10.97 1.02	12.41 1.15	13.84 1.28	15.27 1.41	16.70 1.55	18.13 1.68	19.57 1.81	21.00 1.95	22.43 2.08	23.86 2.22	25.29 2.35	26.73 2.48	28.16 2.62
66 1.68	2.67 0.24	4.27 0.39	5.87 0.54	7.47 0.69	9.08 0.84	10.68 0.99	12.28 1.14	13.88 1.29	15.48 1.43	17.09 1.58	18.69 1.73	20.29 1.88	21.89 2.03	23.50 2.18	25.10 2.33	26.70 2.48	28.30 2.63	29.91 2.78	31.51 2.93
72 1.83	2.91 0.27	4.66 0.43	6.41 0.59	8.16 0.75	9.91 0.92	11.66 1.08	13.41 1.24	15.16 1.40	16.91 1.57	18.66 1.73	20.40 1.89	22.15 2.05	23.90 2.22	25.65 2.38	27.40 2.54	29.14 2.71	30.89 2.87	32.64 3.03	34.39 3.20
78 1.98	3.19 0.29	5.11 0.47	7.03 0.65	8.94 0.83	10.86 1.01	12.78 1.18	14.70 1.36	16.62 1.54	18.53 1.72	20.45 1.90	22.37 2.07	24.29 2.25	26.20 2.43	28.12 2.61	30.04 2.79	31.96 2.97	33.87 3.15	35.79 3.33	37.71 3.50
84 2.13	3.45 0.32	5.52 0.51	7.59 0.70	9.65 0.89	11.72 1.09	13.79 1.28	15.86 1.47	17.93 1.66	20.00 1.85	22.07 2.05	24.14 2.24	26.21 2.43	28.28 2.62	30.35 2.82	32.42 3.01	34.49 3.21	36.56 3.40	38.63 3.59	40.70 3.78
90 2.29	3.72 0.34	5.95 0.55	8.19 0.76	10.42 0.96	12.66 1.17	14.89 1.38	17.13 1.59	19.36 1.79	21.60 2.00	23.83 2.21	26.06 2.42	28.30 2.62	30.53 2.83	32.77 3.04	35.00 3.25	37.24 3.46	39.47 3.67	41.71 3.88	43.94 4.08
96 2.44	4.00 0.37	6.41 0.59	8.81 0.81	11.22 1.04	13.62 1.26	16.03 1.48	18.43 1.71	20.84 1.93	23.24 2.16	25.65 2.38	28.05 2.60	30.46 2.83	32.86 3.05	35.27 3.27	37.67 3.50	40.07 3.72	42.48 3.95	44.80 4.16	47.28 4.39

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	54%
Free Area sq. ft. (sq. m.)	8.62 (0.80)
Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	722 fpm (220 m/min.)
Air Volume at 722 fpm	6224 cfm (2937 l/s)
Free Area Velocity	
Pressure Drop @ 722 fpm	.09 in. w.g. (22 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

STATIC PRESSURE DROP IN INCHES w.g. (Pa)



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	12 - 1 - 10	1600	NEW	1604J



EXTRUDED ALUMINUM STATIONARY LOUVER 6" (152) DEEP • J BLADE • ARCHITECTURAL MODEL: 1606J

Model 1606J, J style blade type, is an architecturally styled 6" (152) deep louver designed with smooth, clean lines that visually compliment any structure's exterior styling. Available in channel or flanged type, the 6" (152) deep frame installs easily in most common wall configurations. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics and a high free area. Reinforcing bosses run the full length of each blade for superior strength.

STANDARD CONSTRUCTION:

FRAME: 6" (152) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses. J style.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approximately 6" (152) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed architectural style allowing continuous line appearance.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | |
|---|---|
| <input type="checkbox"/> FL Flanged Frame. | <input type="checkbox"/> ESI Extended Sill. |
| <input type="checkbox"/> BSSS Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN No Bird Screen. | <input type="checkbox"/> FR2 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA Aluminum Insect Screen. | <input type="checkbox"/> PAC Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: _____. |
| <input type="checkbox"/> WE Welded Construction. | |

OPTIONAL FINISHES:

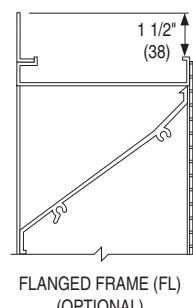
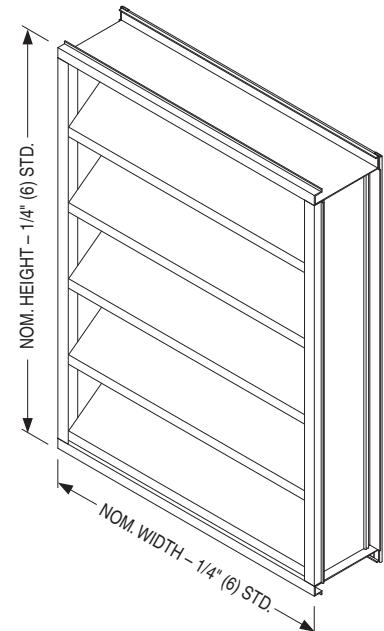
- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

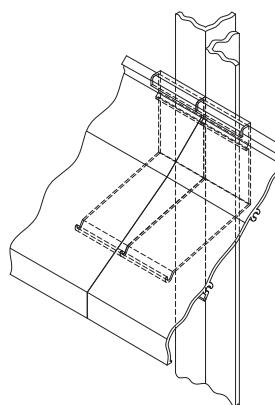
- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

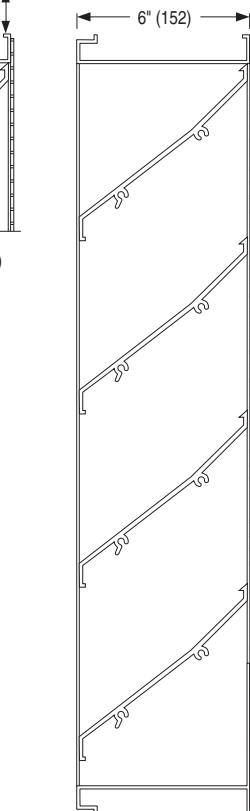
- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



FLANGED FRAME (FL)
(OPTIONAL)



ARCHITECTURAL STYLE
CONCEALED MULLION DETAIL



BIRD SCREEN

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
12 - 1 - 10	1600	NEW	1606J



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
6" (152) DEEP • J BLADE • ARCHITECTURAL
PERFORMANCE DATA
MODEL: 1606J**

FREE AREA in Square Feet and Square Meters

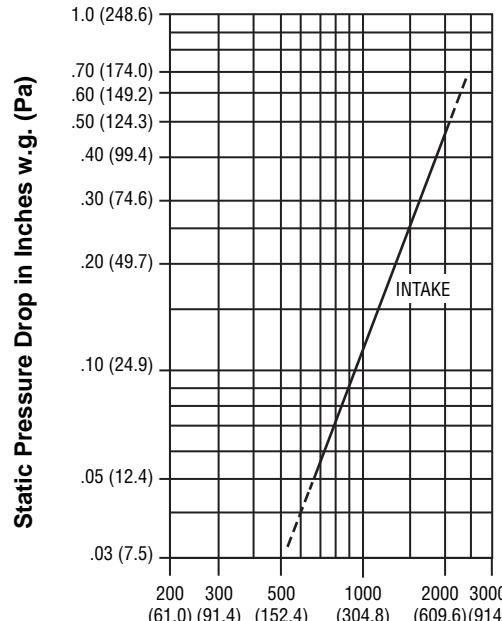
		Width in Inches and Meters																		
		12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
Height in Inches and Meters	12 0.30	0.21	0.33	0.45	0.57	0.69	0.81	0.93	1.05	1.17	1.29	1.41	1.53	1.65	1.77	1.89	2.02	2.14	2.26	2.38
	18 0.46	0.48	0.75	1.03	1.31	1.59	1.87	2.14	2.42	2.70	2.98	3.26	3.54	3.81	4.09	4.37	4.65	4.93	5.21	5.48
	24 0.61	0.75	1.18	1.62	2.06	2.50	2.94	3.37	3.81	4.25	4.69	5.12	5.56	6.00	6.44	6.87	7.31	7.75	8.19	8.62
	30 0.76	1.02	1.62	2.21	2.81	3.41	4.01	4.60	5.20	5.80	6.40	6.99	7.59	8.19	8.78	9.38	9.98	10.58	11.17	11.77
	36 0.91	1.29	2.05	2.81	3.56	4.32	5.08	5.84	6.59	7.35	8.11	8.86	9.62	10.38	11.14	11.89	12.65	13.41	14.16	14.92
	42 1.07	1.52	2.40	3.29	4.18	5.07	5.96	6.84	7.73	8.62	9.51	10.40	11.28	12.17	13.06	13.95	14.84	15.72	16.61	17.50
	48 1.22	1.79	2.84	3.88	4.93	5.98	7.04	8.13	9.12	10.17	11.22	12.27	13.31	14.36	15.41	16.46	17.50	18.55	19.60	20.65
	54 1.37	2.06	3.27	4.48	5.68	6.89	8.10	9.31	10.51	11.72	12.93	14.14	15.34	16.55	17.76	18.97	20.17	21.38	22.59	23.80
	60 1.52	2.34	3.70	5.07	6.44	7.80	9.17	10.54	11.91	13.27	14.64	16.01	17.38	18.74	20.11	21.48	22.84	24.21	25.58	26.95
	66 1.68	2.61	4.14	5.66	7.19	8.72	10.24	11.77	13.30	14.83	16.35	17.88	19.41	20.93	22.46	23.99	25.52	27.04	28.57	30.10
	72 1.83	2.88	4.57	6.26	7.94	9.63	11.32	13.00	14.69	16.38	18.07	19.75	21.44	23.13	24.81	26.50	28.19	29.87	31.56	33.25
	78 1.98	3.16	5.00	6.85	8.70	10.54	12.39	14.24	16.08	17.93	19.78	21.63	23.47	25.32	27.17	29.01	30.86	32.71	34.55	36.40
	84 2.13	3.43	5.44	7.44	9.45	11.46	13.46	15.47	17.48	19.48	21.49	23.50	25.51	27.51	29.52	31.53	33.53	35.54	37.55	39.55
	90 2.29	3.70	5.87	8.04	10.20	12.37	14.54	16.70	18.87	21.04	23.21	25.37	27.54	29.71	31.87	34.04	36.21	38.37	40.54	42.71
	96 2.44	3.98	6.30	8.63	10.96	13.28	15.61	17.94	20.26	22.59	24.92	27.25	29.57	31.90	34.23	36.55	38.88	41.21	43.53	45.86

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	51%
Free Area sq. ft. (sq. m.)	8.13 (0.76)
Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1029 fpm (314 m/min.)
Air Volume at 1029 fpm	8366 cfm (3948 l/s)
Free Area Velocity	
Pressure Drop @ 1029 fpm	.13 in. w.g. (32 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	12 - 1 - 10	1600	NEW	1606J



EXTRUDED ALUMINUM STATIONARY LOUVER 4" (102) DEEP • J BLADE • DRAINABLE HEAD MODEL: 1604JD (1604SB)

Model 1604JD, incorporating J style blades, is an architecturally styled 4" (102) deep louver designed with smooth, clean lines that visually compliment any structure's exterior styling. Available in channel or flanged type, the 4" (102) deep frame installs easily in most common wall configurations. The drainable head feature utilizes a top gutter that collects the water running down the building face and channels it out the concealed downspouts in the side frame, thus preventing it from flowing down into the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics and a high free area. Reinforcing bosses run the full length of each blade for superior strength. Model 1604JD is AMCA Licensed and is engineered to be architecturally appealing as well as mechanically enduring.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses. J style.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 4" (102) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

Color Anodized:

- | | | | |
|--------------------------------------|---------------|--------------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

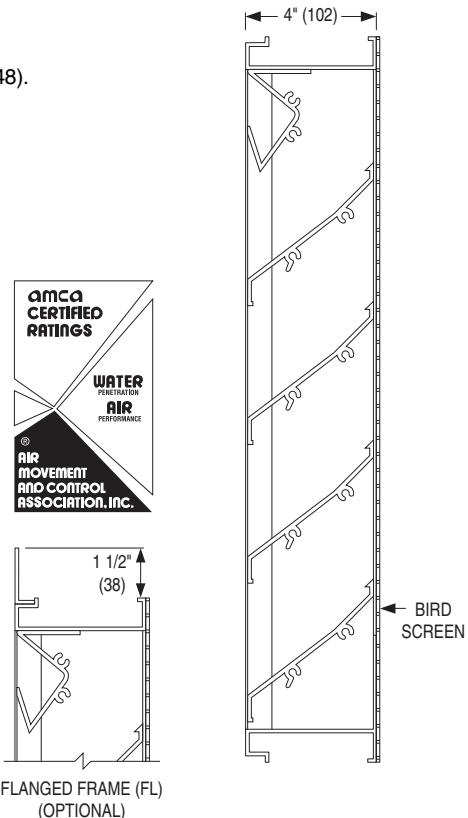
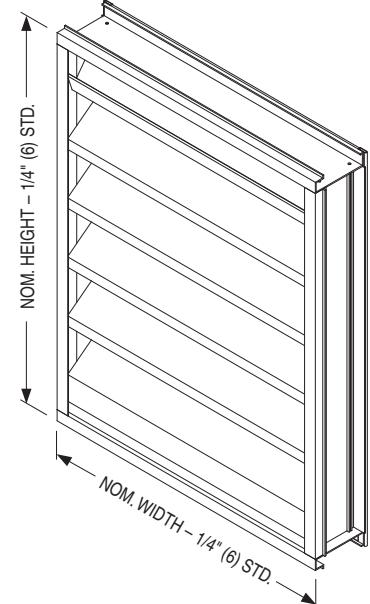
- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:



Page 1 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1604SB-1 9 - 22 - 03R	1604JD



**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • J BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1604JD (1604SB)**

FREE AREA in Square Feet and Square Meters

	Height in Inches and Meters	Width in Inches and Meters																	
		12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90
12 .30	0.25 0.02	0.39 0.03	0.54 0.05	0.69 0.06	0.84 0.07	0.99 0.09	1.14 0.10	1.29 0.12	1.44 0.13	1.59 0.14	1.74 0.16	1.89 0.17	2.04 0.19	2.19 0.20	2.34 0.21	2.49 0.22	2.64 0.25	2.79 0.26	2.94 0.27
18 .46	0.52 0.05	0.83 0.07	1.14 0.10	1.46 0.13	1.77 0.16	2.09 0.19	2.40 0.22	2.71 0.25	3.03 0.28	3.34 0.31	3.65 0.34	3.97 0.36	4.28 0.39	4.59 0.42	4.91 0.45	5.22 0.49	5.53 0.51	5.85 0.54	6.16 0.57
24 .61	0.80 0.07	1.28 0.12	1.77 0.16	2.25 0.21	2.73 0.25	3.22 0.29	3.70 0.34	4.19 0.38	4.67 0.43	5.15 0.47	5.64 0.52	6.12 0.56	6.60 0.61	7.09 0.65	7.57 0.70	8.05 0.75	8.54 0.79	9.02 0.84	9.50 0.88
30 .76	1.04 0.09	1.67 0.15	2.30 0.21	2.93 0.27	3.56 0.33	4.19 0.39	4.82 0.44	5.45 0.50	6.08 0.56	6.71 0.62	7.34 0.68	7.97 0.74	8.60 0.79	9.23 0.85	9.86 0.91	10.49 0.98	11.12 1.03	11.75 1.09	12.38 1.15
36 .91	1.33 0.12	2.13 0.19	2.93 0.27	3.73 0.34	4.53 0.42	5.33 0.49	6.13 0.57	6.93 0.64	7.73 0.71	8.53 0.79	9.33 0.86	10.13 0.94	10.93 1.01	11.73 1.09	12.53 1.16	13.33 1.24	14.13 1.31	14.93 1.39	15.73 1.46
42 1.07	1.58 0.14	2.52 0.23	3.47 0.32	4.42 0.41	5.37 0.49	6.32 0.58	7.27 0.67	8.22 0.76	9.16 0.85	10.11 0.94	11.06 1.02	12.01 1.11	12.96 1.20	13.91 1.29	14.86 1.38	15.81 1.47	16.76 1.56	17.71 1.65	18.66 1.73
48 1.22	1.85 0.17	2.97 0.27	4.09 0.38	5.20 0.48	6.32 0.58	7.43 0.69	8.57 0.80	9.66 0.89	10.78 1.00	11.89 1.10	13.01 1.20	14.12 1.31	15.24 1.41	16.35 1.52	17.47 1.62	18.58 1.73	19.70 1.83	20.81 1.93	21.93 2.04
54 1.37	2.11 0.19	3.38 0.31	4.64 0.43	5.91 0.54	7.18 0.66	8.44 0.78	9.71 0.90	10.98 1.02	12.25 1.13	13.51 1.25	14.78 1.37	16.05 1.49	17.32 1.60	18.58 1.72	19.85 1.84	21.12 1.96	22.38 2.08	23.64 2.20	24.91 2.32
60 1.52	2.38 0.22	3.81 0.35	5.25 0.48	6.68 0.62	8.11 0.75	9.54 0.88	10.97 1.02	12.41 1.15	13.84 1.28	15.27 1.41	16.70 1.55	18.13 1.68	19.57 1.81	21.00 1.95	22.43 2.08	23.86 2.22	25.29 2.35	26.73 2.48	28.16 2.62
66 1.68	2.67 0.24	4.27 0.39	5.87 0.54	7.47 0.69	9.08 0.84	10.68 0.99	12.28 1.14	13.88 1.29	15.48 1.43	17.09 1.58	18.69 1.73	20.29 1.88	21.89 2.03	23.50 2.18	25.10 2.33	26.70 2.48	28.30 2.63	29.91 2.78	31.51 2.93
72 1.83	2.91 0.27	4.66 0.43	6.41 0.59	8.16 0.75	9.91 0.92	11.66 1.08	13.41 1.24	15.16 1.40	16.91 1.57	18.66 1.73	20.40 1.89	22.15 2.05	23.90 2.22	25.65 2.38	27.40 2.54	29.14 2.71	30.89 2.87	32.64 3.03	34.39 3.20
78 1.98	3.19 0.29	5.11 0.47	7.03 0.65	8.94 0.83	10.86 1.01	12.78 1.18	14.70 1.36	16.62 1.54	18.53 1.72	20.45 1.90	22.37 2.07	24.29 2.25	26.20 2.43	28.12 2.61	30.04 2.79	31.96 2.97	33.87 3.15	35.79 3.33	37.71 3.50
84 2.13	3.45 0.32	5.52 0.51	7.59 0.70	9.65 0.89	11.72 1.09	13.79 1.28	15.86 1.47	17.93 1.66	20.00 1.85	22.07 2.05	24.14 2.24	26.21 2.43	28.28 2.62	30.35 2.82	32.42 3.01	34.49 3.21	36.56 3.40	38.63 3.59	40.70 3.78
90 2.29	3.72 0.34	5.95 0.55	8.19 0.76	10.42 0.96	12.66 1.17	14.89 1.38	17.13 1.59	19.36 1.79	21.60 2.00	23.83 2.21	26.06 2.42	28.30 2.62	30.53 2.83	32.77 3.04	35.00 3.25	37.24 3.46	39.47 3.67	41.71 3.88	43.94 4.08
96 2.44	4.00 0.37	6.41 0.59	8.81 0.81	11.22 1.04	13.62 1.26	16.03 1.48	18.43 1.71	20.84 1.93	23.24 2.16	25.65 2.38	28.05 2.60	30.46 2.83	32.86 3.05	35.27 3.27	37.67 3.50	40.07 3.72	42.48 3.95	44.80 4.16	47.28 4.39
102 2.59	4.30 0.40	6.88 0.64	9.46 0.88	12.04 1.12	14.61 1.36	17.19 1.60	19.77 1.84	22.35 2.08	24.93 2.32	27.51 2.56	30.09 2.80	32.67 3.03	35.25 3.27	37.82 3.51	40.40 3.75	42.98 3.99	45.56 4.23	48.14 4.47	50.72 4.71
108 2.74	4.54 0.42	7.26 0.67	9.98 0.93	12.71 1.18	15.43 1.43	18.15 1.69	20.88 1.94	23.60 2.19	26.32 2.45	29.04 2.70	31.77 2.95	34.49 3.20	37.21 3.46	39.94 3.71	42.66 3.96	45.38 4.22	48.10 4.47	50.83 4.72	53.55 4.97
114 2.90	4.82 0.45	7.72 0.72	10.61 0.99	13.51 1.25	16.40 1.52	19.30 1.79	22.19 2.06	25.09 2.33	27.98 2.60	30.88 2.87	33.77 3.14	36.67 3.41	39.56 3.68	42.46 3.94	45.35 4.21	48.24 4.48	51.14 4.75	54.03 5.02	56.93 5.29
120 3.05	5.06 0.47	8.10 0.75	11.14 1.03	14.18 1.32	17.21 1.60	20.25 1.88	23.29 2.16	26.33 2.45	29.37 2.73	32.40 3.01	35.44 3.29	38.48 3.57	41.52 3.86	44.55 4.14	47.59 4.42	50.63 4.70	53.67 4.99	56.71 5.27	59.74 5.55



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).

DATE: 2 - 2 - 11 | B SERIES: 1600 | SUPERSEDES: 1604SB-2
DRAWING NO.: 9 - 22 - 03R | 1604JD



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • J BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1604JD (1604SB)**

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

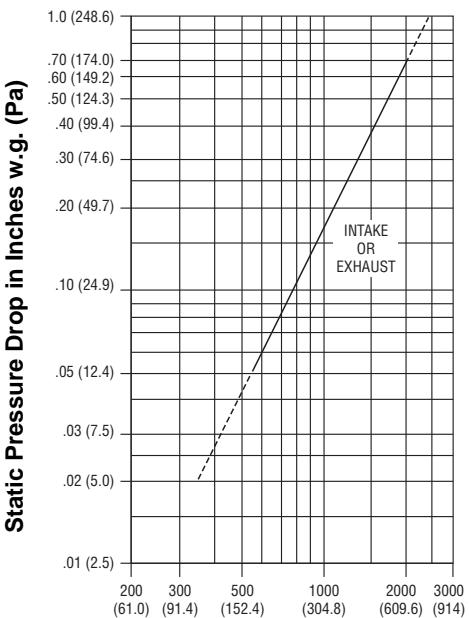
Free Area %	54%
Free Area sq. ft. (sq. m.)	8.57 (0.80)
I N T A K E Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	961 fpm (293 m/min.)
Air Volume at 961 fpm	8236 cfm (3887 l/s)
Free Area Velocity	
Pressure Drop @ 961 fpm	.16 in. w.g. (40 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1604JD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1604SB-2 9 - 22 - 03R	1604JD



EXTRUDED ALUMINUM STATIONARY LOUVER 6" (152) DEEP • J BLADE • DRAINABLE HEAD MODEL: 1606JD (1606SB)

Model 1606JD is an architecturally styled 6" (152) deep louver designed with smooth, clean lines that visually compliment any structure's exterior styling. Available in channel or flanged type, the 6" (152) deep frame installs easily in most common wall configurations. The drainable head feature utilizes a top gutter that collects the water running down the building face and channels it out the concealed downspouts in the side frame, thus preventing it from flowing down into the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics and a high free area. Reinforcing bosses run the full length of each blade for superior strength. Model 1606JD is engineered to be architecturally appealing as well as mechanically enduring.

STANDARD CONSTRUCTION:

FRAME: 6" (152) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses. J style.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 6" (152) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

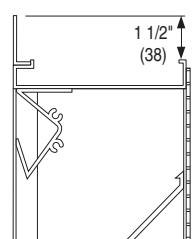
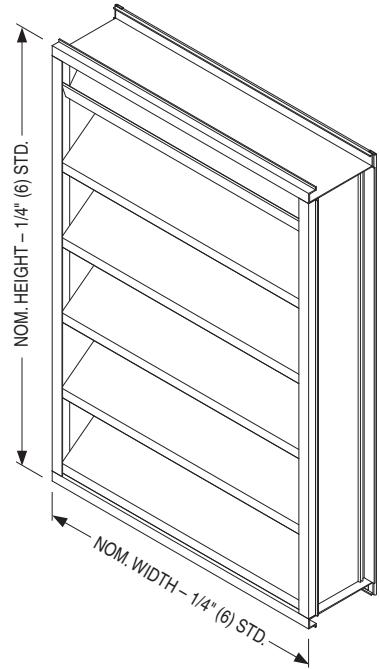
- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

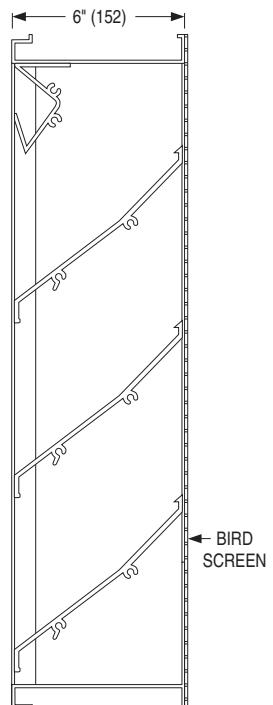
- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



FLANGED FRAME (FL)
(OPTIONAL)



Page 1 of 3
Dimensions are in inches (mm).

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	2 - 2 - 11	1600	1606SB-1 4-28-08	1606JD



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
6" (152) DEEP • J BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1606JD (1606SB)**

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters																			
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05	
12	0.21	0.33	0.45	0.57	0.69	0.81	0.93	1.05	1.17	1.29	1.41	1.53	1.65	1.77	1.89	2.02	2.14	2.26	2.38	
18	0.48	0.75	1.03	1.31	1.59	1.87	2.14	2.42	2.70	2.98	3.26	3.54	3.81	4.09	4.37	4.65	4.93	5.21	5.48	
24	0.75	1.18	1.62	2.06	2.50	2.94	3.37	3.81	4.25	4.69	5.12	5.56	6.00	6.44	6.87	7.31	7.75	8.19	8.62	
30	1.02	1.62	2.21	2.81	3.41	4.01	4.60	5.20	5.80	6.40	6.99	7.59	8.19	8.78	9.38	9.98	10.58	11.17	11.77	
36	1.29	2.05	2.81	3.56	4.32	5.08	5.84	6.59	7.35	8.11	8.86	9.62	10.38	11.14	11.89	12.65	13.41	14.16	14.92	
42	1.52	2.40	3.29	4.18	5.07	5.96	6.84	7.73	8.62	9.51	10.40	11.28	12.17	13.06	13.95	14.84	15.72	16.61	17.50	
48	1.79	2.84	3.88	4.93	5.98	7.04	8.13	9.12	10.17	11.22	12.27	13.31	14.36	15.41	16.46	17.50	18.55	19.60	20.65	
54	2.06	3.27	4.48	5.68	6.89	8.10	9.31	10.51	11.72	12.93	14.14	15.34	16.55	17.76	18.97	20.17	21.38	22.59	23.80	
60	2.34	3.70	5.07	6.44	7.80	9.17	10.54	11.91	13.27	14.64	16.01	17.38	18.74	20.11	21.48	22.84	24.21	25.58	26.95	
66	2.61	4.14	5.66	7.19	8.72	10.24	11.77	13.30	14.83	16.35	17.88	19.41	20.93	22.46	23.99	25.52	27.04	28.57	30.10	
72	2.88	4.57	6.26	7.94	9.63	11.32	13.00	14.69	16.38	18.07	19.75	21.44	23.13	24.81	26.50	28.19	29.87	31.56	33.25	
78	3.16	5.00	6.85	8.70	10.54	12.39	14.24	16.08	17.93	19.78	21.63	23.47	25.32	27.17	29.01	30.86	32.71	34.55	36.40	
84	3.43	5.44	7.44	9.45	11.46	13.46	15.47	17.48	19.48	21.49	23.50	25.51	27.51	29.52	31.53	33.53	35.54	37.55	39.55	
90	3.70	5.87	8.04	10.20	12.37	14.54	16.70	18.87	21.04	23.21	25.37	27.54	29.71	31.87	34.04	36.21	38.37	40.54	42.71	
96	3.98	6.30	8.63	10.96	13.28	15.61	17.94	20.26	22.59	24.92	27.25	29.57	31.90	34.23	36.55	38.88	41.21	43.53	45.86	
102	4.32	6.92	9.51	12.11	14.70	17.30	19.89	22.48	25.08	27.67	30.27	32.86	35.46	38.05	40.64	43.24	45.83	48.43	51.02	
108	4.60	7.36	10.12	12.88	15.64	18.40	21.16	23.92	26.68	29.44	32.20	34.96	37.72	40.48	43.24	46.00	48.76	51.52	54.28	
114	4.88	7.80	10.73	13.65	16.58	19.51	22.43	25.36	28.29	31.21	34.14	37.06	39.99	42.92	45.84	48.77	51.69	54.62	57.55	
120	5.15	8.24	11.33	14.43	17.52	20.61	23.70	26.79	29.88	32.97	36.06	39.15	42.24	45.34	48.43	51.52	54.61	57.70	60.79	
	3.05	0.48	0.77	1.05	1.34	1.63	1.91	2.20	2.49	2.78	3.06	3.35	3.64	3.92	4.21	4.50	4.79	5.07	5.36	5.65



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1606SB-2 4-28-08	1606JD



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
6" (152) DEEP • J BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1606JD (1606SB)**

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

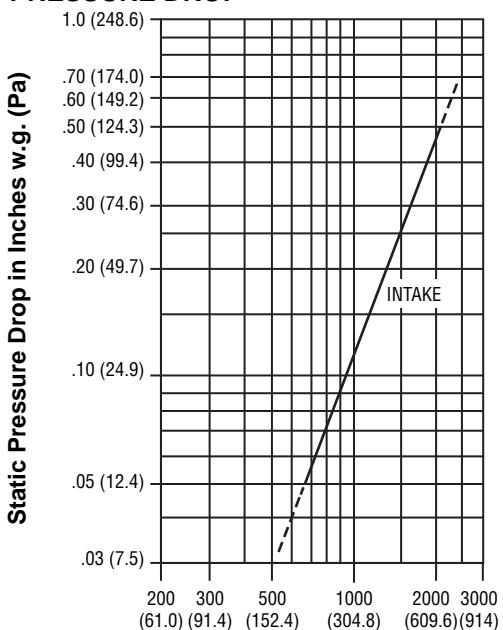
Free Area %	51%
Free Area sq. ft. (sq. m.)	8.13 (0.76)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	1121 fpm (341 m/min.)
	Air Volume at 1121 fpm
	9113 cfm (4300 l/s)
	Free Area Velocity
	.15 in. w.g. (37 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1606JD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area
Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1606SB-2 4-28-08	1606JD



EXTRUDED ALUMINUM STATIONARY LOUVER 2" (51) DEEP • K BLADE • ARCHITECTURAL MODEL: 1602K (1602SR)

Model 1602K, incorporating K style blades (formerly "storm resistant" or "stormproof") is a 2" (51) deep louver, which combines good weather protection and performance with aesthetics that compliment any architecture. It is ideal for use in thin wall applications or a/c units where a full depth louver cannot be used. Suitable for use in exhaust and low to medium velocity intake applications, the K blade design features a rear water baffle plus an additional rain hook, providing good protection against more forbidding weather conditions. Blades are reinforced with full length integral bosses for superior strength and the design exhibits excellent pressure drop characteristics through it's high free area. Model 1602K is available with channel or flanged type frame to suit most architectural and mechanical installation requirements.

STANDARD CONSTRUCTION:

FRAME: 2" (51) deep, Type 6063-T5 extruded aluminum, .060" (1.5) nominal wall thickness. Integral caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .060" (1.5) nominal wall thickness, with reinforcing bosses. K style.

BLADE ANGLE: Fixed at 30 degrees.

BLADE SPACING: Approximately 2" (51) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed architectural style allowing continuous line appearance.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 8" W x 8" H (203 x 203).

MAXIMUM SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

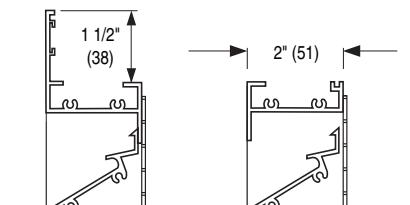
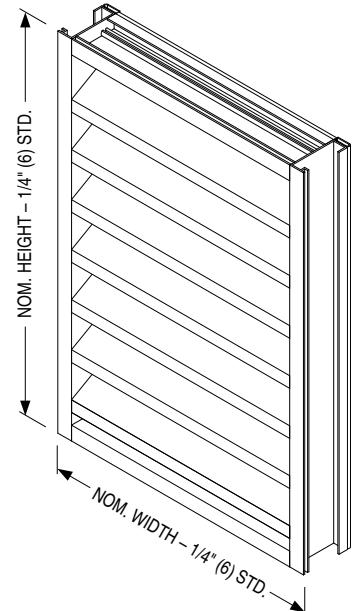
- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).

SCHEDULE TYPE:

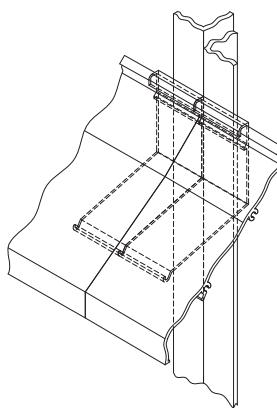
PROJECT:

ENGINEER:

CONTRACTOR:



FLANGED FRAME (FL)
(OPTIONAL)



ARCHITECTURAL STYLE
CONCEALED MULLION DETAIL

Page 1 of 2

Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
12 - 1 - 10	1600	1602SR-1 9 - 22 - 03R	1602K



Nailor[®]
Industries Inc.

EXTRUDED ALUMINUM STATIONARY LOUVERS
2" (51) DEEP • K BLADE • ARCHITECTURAL
PERFORMANCE DATA
MODEL: 1602K (1602SR)

FREE AREA in Square Feet and Square Meters

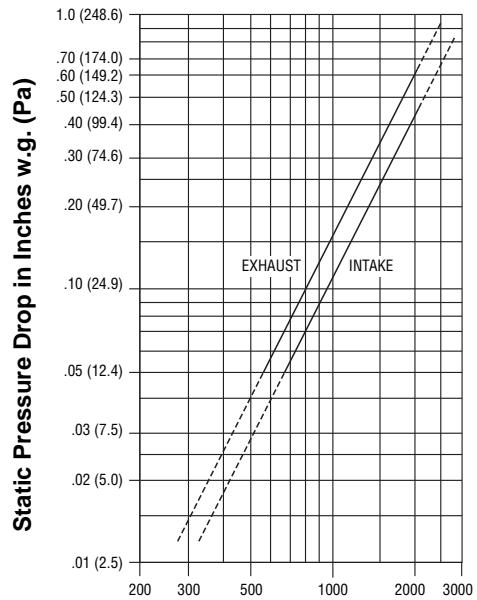
Height in Inches and Meters	Width in Inches and Meters																			
	8 0.20	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
8 0.20	0.12 0.01	0.19 0.02	0.30 0.03	0.41 0.04	0.53 0.05	0.64 0.06	0.75 0.07	0.86 0.08	0.97 0.09	1.08 0.10	1.19 0.11	1.30 0.12	1.42 0.13	1.53 0.14	1.64 0.15	1.75 0.16	1.86 0.17	1.97 0.18	2.09 0.19	2.20 0.20
12 .30	0.21 .02	0.33 .03	0.52 .04	0.71 .06	0.90 .08	1.09 .10	1.28 .11	1.47 .13	1.66 .15	1.85 .17	2.03 .18	2.22 .20	2.41 .22	2.60 .24	2.79 .26	2.98 .27	3.16 .29	3.35 .31	3.54 .33	3.73 .35
18 .46	0.34 .03	0.54 .05	0.85 .08	1.16 .10	1.48 .13	1.79 .16	2.10 .19	2.41 .22	2.72 .25	3.04 .28	3.35 .31	3.66 .34	3.97 .36	4.28 .39	4.59 .42	4.91 .45	5.22 .48	5.53 .51	5.84 .54	6.15 .57
24 .61	0.49 .05	0.79 .07	1.24 .11	1.69 .15	2.14 .19	2.59 .24	3.05 .28	3.50 .32	3.95 .36	4.40 .40	4.85 .45	5.31 .49	5.76 .53	6.21 .57	6.66 .61	7.11 .66	7.56 .70	8.02 .75	8.47 .79	8.92 .83
30 .76	0.64 .06	1.03 .09	1.62 .15	2.21 .20	2.80 .26	3.39 .31	3.98 .37	4.57 .42	5.16 .47	5.75 .53	6.33 .58	6.92 .64	7.51 .69	8.10 .75	8.69 .80	9.28 .86	9.87 .92	10.45 .97	11.04 .103	11.63 .108
36 .91	0.77 .07	1.24 .11	1.94 .18	2.65 .24	3.36 .31	4.07 .37	4.78 .44	5.49 .51	6.19 .57	6.90 .64	7.61 .70	8.32 .77	9.03 .83	9.74 .90	10.45 .97	11.15 .103	11.86 .110	12.57 .117	13.28 .123	13.99 .130
42 1.07	0.90 .08	1.44 .13	2.27 .21	3.10 .28	3.92 .36	4.75 .44	5.58 .51	6.41 .59	7.23 .67	8.06 .74	8.89 .82	9.72 .90	10.54 .98	11.37 .105	12.20 .113	13.02 .121	13.85 .129	14.68 .136	15.51 .144	16.33 .152
48 1.22	1.05 .10	1.69 .15	2.65 .24	3.62 .33	4.59 .42	5.55 .51	6.52 .60	7.55 .70	8.45 .78	9.42 .87	10.38 .96	11.35 .105	12.32 .114	13.28 .123	14.25 .132	15.21 .141	16.18 .150	17.14 .159	18.11 .168	19.08 .177
54 1.37	1.20 .11	1.94 .18	3.04 .28	4.15 .38	5.26 .48	6.37 .59	7.48 .69	8.59 .79	9.69 .90	10.80 .100	11.91 .110	13.02 .121	14.13 .131	15.24 .141	16.35 .151	17.45 .162	18.56 .172	19.67 .183	20.78 .193	21.89 .203
60 1.52	1.33 .12	2.14 .20	3.37 .31	4.60 .42	5.82 .54	7.05 .65	8.28 .77	9.51 .88	10.73 .99	11.96 .111	13.19 .122	14.42 .134	15.64 .145	16.87 .156	18.10 .168	19.32 .179	20.55 .191	21.78 .202	23.00 .214	24.23 .225
66 1.68	1.46 .14	2.35 .21	3.70 .34	5.04 .46	6.39 .59	7.73 .71	9.08 .84	10.43 .96	11.77 .109	13.12 .121	14.46 .134	15.81 .146	17.16 .159	18.50 .171	19.85 .184	21.19 .196	22.54 .209	23.88 .222	25.23 .234	26.58 .247
72 1.83	1.60 .15	2.59 .24	4.07 .37	5.55 .51	7.03 .65	8.51 .79	9.99 .92	11.47 .106	12.95 .120	14.43 .134	15.91 .147	17.39 .161	18.87 .175	20.35 .189	21.83 .202	23.31 .216	24.79 .230	26.27 .244	27.75 .258	29.23 .272
78 1.98	1.76 .16	2.84 .26	4.47 .41	6.10 .56	7.72 .71	9.35 .86	10.98 .102	12.61 .117	14.23 .132	15.86 .147	17.49 .162	19.12 .177	20.74 .192	22.37 .207	24.00 .223	25.62 .238	27.25 .253	28.88 .268	30.50 .283	32.13 .298
84 2.13	1.89 .18	3.05 .28	4.80 .44	6.54 .60	8.29 .77	10.03 .93	11.78 .109	13.53 .125	15.27 .141	17.02 .158	18.76 .174	20.51 .190	22.26 .206	24.00 .223	25.75 .239	27.49 .255	29.24 .272	30.98 .288	32.72 .304	34.47 .320
90 2.29	2.02 .19	3.26 .30	5.12 .47	6.99 .65	8.85 .82	10.72 .99	12.58 .116	14.45 .134	16.31 .151	18.18 .168	20.04 .186	21.91 .203	23.77 .220	25.64 .238	27.50 .255	29.36 .272	31.22 .290	33.09 .307	34.95 .325	36.82 .342
96 2.44	2.16 .20	3.49 .32	5.48 .51	7.48 .69	9.47 .88	11.47 .106	13.46 .125	15.45 .143	17.45 .162	19.44 .180	21.44 .199	23.43 .217	25.43 .236	27.42 .254	29.42 .273	31.41 .291	33.41 .310	35.40 .329	37.39 .347	39.38 .366

AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

Free Area %	47%
Free Area sq. ft. (sq. m.)	7.55 (0.70)
Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	401 fpm (122 m/min.)
Air Volume at 401 fpm	3028 cfm (1429 l/s)
Free Area Velocity	
Pressure Drop @ 401 fpm	.02 in. w.g. (5 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:	Page 2 of 2
PROJECT:	Dimensions are in inches (mm).
ENGINEER:	
CONTRACTOR:	
	DATE B SERIES SUPERSEDES DRAWING NO.
	12 - 1 - 10 1600 1602SR-2 9 - 17 - 03R 1602K



EXTRUDED ALUMINUM STATIONARY LOUVER 4" (102) DEEP • K BLADE • DRAINABLE HEAD MODEL: 1604KD (1604SR)

Model 1604KD, 4" (102) deep louver, combines good weather protection and performance with aesthetics that compliment any architecture. The design features a drainable head that collects the water running down the building face and channels it out the concealed downspouts in the side frame, thus preventing it from flowing down into the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the K blade design features a rear water baffle plus an additional center rain hook, providing good protection against more forbidding weather conditions. Blades are reinforced with full length integral bosses for superior strength and the profile exhibits low pressure drop characteristics throughout the airflow range. Model 1604KD is available with channel or flanged type frame to suit most architectural and mechanical installation requirements and is AMCA Licensed.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses. K style.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 4" (102) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

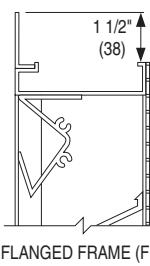
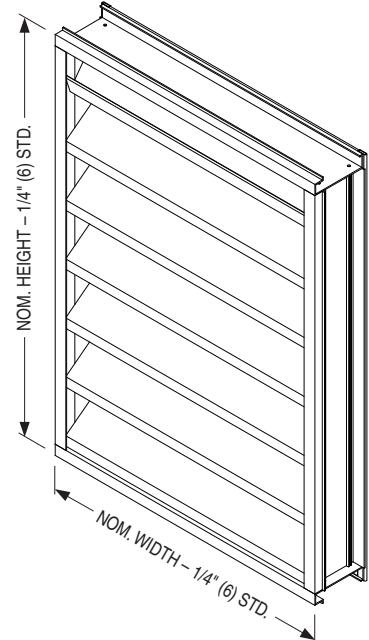
- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

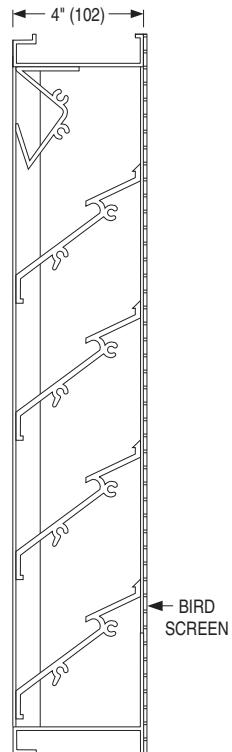
- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



FLANGED FRAME (FL)
(OPTIONAL)



Page 1 of 3
Dimensions are in inches (mm).

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	2 - 2 - 11	1600	1604SR-1 9 - 22 - 03R	1604KD



**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • K BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1604KD (1604SR)**

FREE AREA in Square Feet and Square Meters

	Width in Inches and Meters																		
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
12 0.30	0.21 0.02	0.34 0.03	0.47 0.04	0.60 0.06	0.73 0.07	0.85 0.08	0.98 0.09	1.11 0.10	1.24 0.12	1.37 0.13	1.49 0.14	1.62 0.15	1.75 0.16	1.88 0.17	2.01 0.19	2.13 0.20	2.26 0.21	2.39 0.22	2.52 0.23
18 0.46	0.46 0.04	0.74 0.07	1.02 0.09	1.30 0.12	1.58 0.15	1.86 0.17	2.14 0.20	2.41 0.22	2.69 0.25	2.97 0.28	3.25 0.30	3.53 0.33	3.81 0.35	4.09 0.38	4.37 0.41	4.64 0.43	4.92 0.46	5.20 0.48	5.48 0.51
24 0.61	0.73 0.07	1.17 0.11	1.60 0.15	2.04 0.19	2.48 0.23	2.91 0.27	3.35 0.31	3.79 0.35	4.22 0.39	4.66 0.43	5.10 0.47	5.53 0.51	5.97 0.55	6.41 0.60	6.85 0.64	7.28 0.68	7.72 0.72	8.16 0.76	8.59 0.80
30 0.76	0.93 0.09	1.49 0.14	2.05 0.19	2.61 0.24	3.17 0.29	3.74 0.35	4.30 0.40	4.86 0.45	5.42 0.50	5.98 0.56	6.54 0.61	7.10 0.66	7.66 0.71	8.22 0.76	8.78 0.82	9.34 0.87	9.90 0.92	10.46 0.97	11.02 1.02
36 0.91	1.15 0.11	1.85 0.17	2.54 0.24	3.23 0.30	3.93 0.36	4.62 0.43	5.31 0.49	6.00 0.56	6.70 0.62	7.39 0.69	8.08 0.75	8.77 0.82	9.47 0.88	10.16 0.94	10.85 1.01	11.54 1.07	12.24 1.14	12.93 1.20	13.62 1.27
42 1.07	1.40 0.13	2.24 0.21	3.08 0.29	3.93 0.36	4.77 0.44	5.61 0.52	6.45 0.60	7.29 0.68	8.13 0.76	8.97 0.83	9.81 0.91	10.66 0.99	11.50 1.07	12.34 1.15	13.18 1.22	14.02 1.30	14.86 1.38	15.70 1.46	16.54 1.54
48 1.22	1.62 0.15	2.59 0.24	3.56 0.33	4.53 0.42	5.50 0.51	6.48 0.60	7.51 0.70	8.42 0.78	9.39 0.87	10.36 0.96	11.33 1.05	12.30 1.14	13.28 1.23	14.25 1.32	15.22 1.41	16.19 1.50	17.16 1.59	18.13 1.68	19.10 1.77
54 1.37	1.84 0.17	2.95 0.27	4.06 0.38	5.16 0.48	6.27 0.58	7.37 0.68	8.48 0.79	9.58 0.89	10.69 0.99	11.80 1.10	12.90 1.20	14.01 1.30	15.11 1.40	16.22 1.51	17.33 1.61	18.43 1.71	19.54 1.82	20.64 1.92	21.75 2.02
60 1.52	2.09 0.19	3.34 0.31	4.59 0.43	5.84 0.54	7.10 0.66	8.35 0.78	9.60 0.89	10.85 1.01	12.11 1.12	13.36 1.24	14.61 1.36	15.86 1.47	17.12 1.59	18.37 1.71	19.62 1.82	20.87 1.94	22.13 2.06	23.38 2.17	24.63 2.29
66 1.68	2.31 0.21	3.69 0.34	5.07 0.47	6.46 0.60	7.84 0.73	9.23 0.86	10.61 0.99	12.00 1.11	13.38 1.24	14.76 1.37	16.15 1.50	17.53 1.63	18.92 1.76	20.30 1.89	21.68 2.01	23.07 2.14	24.45 2.27	25.84 2.40	27.22 2.53
72 1.83	2.55 0.24	4.08 0.38	5.62 0.52	7.15 0.66	8.68 0.81	10.21 0.95	11.74 1.09	13.27 1.23	14.80 1.38	16.34 1.52	17.87 1.66	19.40 1.80	20.93 1.94	22.46 2.09	23.99 2.23	25.53 2.37	27.06 2.51	28.59 2.66	30.12 2.80
78 1.98	2.77 0.26	4.43 0.41	6.10 0.57	7.76 0.72	9.42 0.88	11.08 1.03	12.75 1.18	14.41 1.34	16.07 1.49	17.74 1.65	19.40 1.80	21.06 1.96	22.72 2.11	24.39 2.27	26.05 2.42	27.71 2.57	29.37 2.73	31.04 2.88	32.70 3.04
84 2.13	2.99 0.28	4.79 0.45	6.59 0.61	8.38 0.78	10.18 0.95	11.98 1.11	13.77 1.28	15.57 1.45	17.37 1.61	19.16 1.78	20.96 1.95	22.76 2.11	24.55 2.28	26.35 2.45	28.15 2.61	29.94 2.78	31.74 2.95	33.54 3.12	35.33 3.28
90 2.29	3.24 0.30	5.18 0.48	7.12 0.66	9.07 0.84	11.01 1.02	12.95 1.20	14.90 1.38	16.84 1.56	18.78 1.74	20.72 1.93	22.67 2.11	24.61 2.29	26.55 2.47	28.49 2.65	30.44 2.83	32.38 3.01	34.32 3.19	36.27 3.37	38.21 3.55
96 2.44	3.46 0.32	5.53 0.51	7.61 0.71	9.68 0.90	11.76 1.09	13.83 1.29	15.91 1.48	17.99 1.67	20.06 1.86	22.14 2.06	24.21 2.25	26.29 2.44	28.36 2.63	30.44 2.83	32.51 3.02	34.59 3.21	36.66 3.41	38.74 3.60	40.81 3.79
102 2.59	3.68 0.34	5.89 0.55	8.10 0.75	10.31 0.96	12.52 1.16	14.73 1.37	16.94 1.57	19.15 1.78	21.36 1.98	23.56 2.19	25.77 2.39	27.98 2.60	30.19 2.80	32.40 3.01	34.61 3.22	36.82 3.42	39.03 3.63	41.24 3.83	43.45 4.04
108 2.74	3.92 0.36	6.28 0.58	8.63 0.80	10.99 1.02	13.34 1.24	15.69 1.46	18.05 1.68	20.40 1.90	22.76 2.11	25.11 2.33	27.46 2.55	29.82 2.77	32.17 2.99	34.53 3.21	36.88 3.43	39.23 3.64	41.59 3.86	43.94 4.08	46.30 4.30
114 2.90	4.15 0.39	6.63 0.62	9.12 0.85	11.61 1.08	14.10 1.31	16.58 1.54	19.07 1.77	21.56 2.00	24.05 2.23	26.53 2.46	29.02 2.70	31.51 2.93	34.00 3.16	36.48 3.39	38.97 3.62	41.46 3.85	43.95 4.08	46.43 4.31	48.92 4.54
120 3.05	4.39 0.41	7.02 0.65	9.66 0.90	12.29 1.14	14.93 1.39	17.56 1.63	20.19 1.88	22.83 2.12	25.46 2.37	28.10 2.61	30.73 2.85	33.36 3.10	36.00 3.34	38.63 3.59	41.27 3.83	43.90 4.08	46.53 4.32	49.17 4.57	51.80 4.81



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).

DATE: 2 - 2 - 11 B SERIES: 1600 SUPERSEDES: 1604SR-2
DRAWING NO.: 9 - 17 - 03R 1604KD



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • K BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1604KD (1604SR)**

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

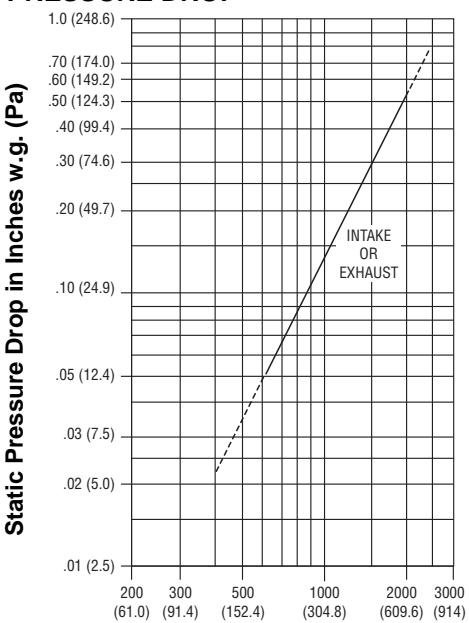
Free Area %	47%
Free Area sq. ft. (sq. m.)	7.51 (0.70)
I N T A K E Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	892 fpm (272 m/min.)
Air Volume at 892 fpm	6699 cfm (3161 l/s)
Free Area Velocity	
Pressure Drop @ 892 fpm	.11 in. w.g. (27 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1604KD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1604SR-2 9-17-03R	1604KD



EXTRUDED ALUMINUM STATIONARY LOUVER 6" (152) DEEP • K BLADE • DRAINABLE HEAD MODEL: 1606KD (1606SR)

Model 1606KD, 6" (152) deep louver, combines excellent weather protection and performance with aesthetics that compliment any architectural design. Standard construction features a drainable head that collects the water running down the building face and channels it out the concealed downspouts in the side frame, thus preventing it from flowing down into the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the K blade design features a rear water baffle plus an additional center rain hook, providing excellent protection against foul weather conditions. Blades are reinforced with full length integral bosses for superior strength, and with a 50% free area, the design is engineered to provide good performance throughout the full airflow range. The 6" (152) deep frame is available in either channel or flanged configuration to suit most architectural and mechanical installation requirements. Model 1606KD is AMCA Licensed.

STANDARD CONSTRUCTION:

FRAME: 6" (152) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses. K style.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 6" (152) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | |
|--|--|
| <input type="checkbox"/> FL Flanged Frame. | <input type="checkbox"/> ESI Extended Sill. |
| <input type="checkbox"/> BSSS Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN No Bird Screen. | <input type="checkbox"/> FR2 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA Aluminum Insect Screen. | <input type="checkbox"/> PAC Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: _____. |
| <input type="checkbox"/> WE Welded Construction. | |

OPTIONAL FINISHES:

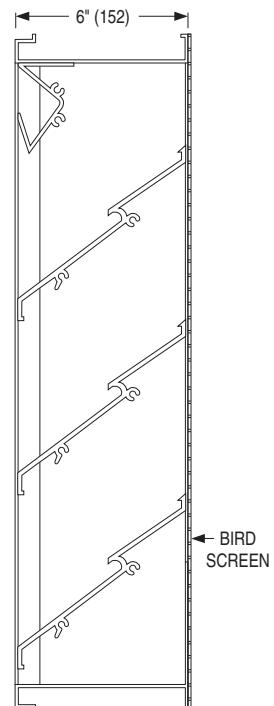
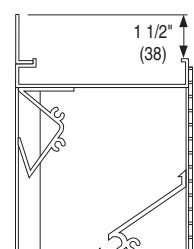
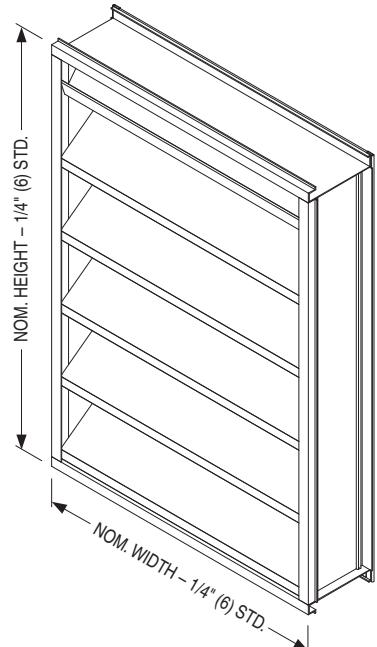
- | |
|---|
| <input type="checkbox"/> PC3 Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC Prime Coat. |
| <input type="checkbox"/> AN04 Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 Clear Anodized 215-R1. |

Color Anodized:

- | | |
|---|--|
| <input type="checkbox"/> ANLB Light Bronze. | <input type="checkbox"/> ANMB Medium Bronze. |
| <input type="checkbox"/> ANDB Dark Bronze. | <input type="checkbox"/> ANBK Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | |
|---|
| <input type="checkbox"/> U00 Exact Size. |
| <input type="checkbox"/> U38 Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 Undersize 1/2" (12.7). |



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 1 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1606SR-1 9 - 22 - 03R	1606KD



Nailor[®]
Industries Inc.

EXTRUDED ALUMINUM STATIONARY LOUVER
6" (152) DEEP • K BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1606KD (1606SR)

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters																		
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
12 0.30	0.18 0.02	0.29 0.03	0.39 0.04	0.50 0.05	0.61 0.06	0.72 0.07	0.82 0.08	0.93 0.09	1.04 0.10	1.15 0.11	1.25 0.12	1.36 0.13	1.47 0.14	1.57 0.15	1.68 0.16	1.79 0.17	1.90 0.18	2.00 0.19	2.11 0.20
18 0.46	0.44 0.04	0.71 0.07	0.97 0.09	1.24 0.12	1.51 0.14	1.77 0.16	2.04 0.19	2.30 0.21	2.57 0.24	2.84 0.26	3.10 0.29	3.37 0.31	3.63 0.34	3.90 0.36	4.17 0.39	4.43 0.41	4.70 0.44	4.96 0.46	5.23 0.49
24 0.61	0.68 0.06	1.09 0.10	1.50 0.14	1.92 0.18	2.33 0.22	2.74 0.25	3.15 0.29	3.56 0.33	3.97 0.37	4.38 0.41	4.79 0.44	5.20 0.48	5.61 0.52	6.02 0.56	6.43 0.60	6.84 0.64	7.25 0.67	7.66 0.71	8.07 0.75
30 0.76	0.94 0.09	1.51 0.14	2.08 0.19	2.64 0.25	3.21 0.30	3.78 0.35	4.35 0.40	4.91 0.46	5.48 0.51	6.05 0.56	6.61 0.61	7.18 0.67	7.75 0.72	8.31 0.77	8.88 0.82	9.45 0.88	10.01 0.93	10.58 0.98	11.15 1.04
36 0.91	1.21 0.11	1.93 0.18	2.65 0.25	3.38 0.31	4.10 0.38	4.82 0.45	5.55 0.52	6.27 0.58	6.99 0.65	7.72 0.72	8.44 0.78	9.16 0.85	9.89 0.92	10.61 0.99	11.33 1.05	12.06 1.12	12.78 1.19	13.50 1.25	14.23 1.32
42 1.07	1.47 0.14	2.35 0.22	3.23 0.30	4.11 0.38	4.99 0.46	5.87 0.54	6.75 0.63	7.63 0.71	8.51 0.79	9.39 0.87	10.26 0.95	11.14 1.04	12.02 1.12	12.90 1.20	13.78 1.28	14.66 1.36	15.54 1.44	16.42 1.53	17.30 1.61
48 1.22	1.73 0.16	2.76 0.26	3.80 0.35	4.84 0.45	5.87 0.55	6.91 0.64	7.93 0.74	8.98 0.83	10.02 0.93	11.06 1.03	12.09 1.12	13.13 1.22	14.17 1.32	15.20 1.41	16.24 1.51	17.28 1.60	18.31 1.70	19.35 1.80	20.39 1.89
54 1.37	1.99 0.18	3.18 0.30	4.37 0.41	5.57 0.52	6.76 0.63	7.95 0.74	9.15 0.85	10.34 0.96	11.53 1.07	12.72 1.18	13.92 1.29	15.11 1.40	16.30 1.51	17.50 1.63	18.69 1.74	19.88 1.85	21.07 1.96	22.27 2.07	23.46 2.18
60 1.52	2.25 0.21	3.60 0.33	4.95 0.46	6.30 0.59	7.65 0.71	9.00 0.84	10.35 0.96	11.70 1.09	13.05 1.21	14.40 1.34	15.75 1.46	17.10 1.59	18.45 1.71	19.80 1.84	21.15 1.96	22.50 2.09	23.85 2.22	25.20 2.34	26.55 2.47
66 1.68	2.51 0.23	4.02 0.37	5.52 0.51	7.03 0.65	8.54 0.79	10.04 0.93	11.55 1.07	13.06 1.21	14.56 1.35	16.07 1.49	17.57 1.63	19.08 1.77	20.59 1.91	22.09 2.05	23.60 2.19	25.11 2.33	26.61 2.47	28.12 2.61	29.63 2.75
72 1.83	2.77 0.26	4.43 0.41	6.10 0.57	7.76 0.72	9.42 0.88	11.09 1.03	12.75 1.18	14.41 1.34	16.08 1.49	17.74 1.65	19.40 1.80	21.07 1.96	22.73 2.11	24.39 2.27	26.05 2.42	27.72 2.57	29.38 2.73	31.04 2.88	32.71 3.04
78 1.98	3.03 0.28	4.85 0.45	6.67 0.62	8.49 0.79	10.31 0.96	12.13 1.13	13.95 1.30	15.77 1.46	17.59 1.63	19.41 1.80	21.23 1.97	23.05 2.14	24.87 2.31	26.69 2.48	28.51 2.65	30.33 2.82	32.15 2.99	33.96 3.16	35.78 3.32
84 2.13	3.29 0.31	5.27 0.49	7.25 0.67	9.22 0.86	11.20 1.04	13.18 1.22	15.15 1.41	17.13 1.59	19.10 1.77	21.08 1.96	23.06 2.14	25.03 2.33	27.01 2.51	28.99 2.69	30.96 2.88	32.94 3.06	34.92 3.24	36.89 3.43	38.87 3.61
90 2.29	3.56 0.33	5.69 0.53	7.82 0.73	9.95 0.92	12.09 1.12	14.22 1.32	16.35 1.52	18.49 1.72	20.62 1.92	22.75 2.11	24.89 2.31	27.02 2.51	29.15 2.71	31.29 2.91	33.42 3.10	35.55 3.30	37.69 3.50	39.82 3.70	41.95 3.90
96 2.44	3.82 0.35	6.11 0.57	8.39 0.78	10.68 0.99	12.97 1.21	15.26 1.42	17.55 1.63	19.84 1.84	22.13 2.06	24.42 2.27	26.71 2.48	29.00 2.69	31.29 2.91	33.58 3.12	35.87 3.33	38.16 3.54	40.45 3.76	42.74 3.97	45.03 4.18
102 2.59	4.08 0.38	6.52 0.61	8.97 0.83	11.42 1.06	13.86 1.29	16.31 1.52	18.75 1.74	21.20 1.97	23.65 2.20	26.09 2.42	28.54 2.65	30.99 2.88	33.43 3.11	35.88 3.33	38.32 3.56	40.77 3.79	43.22 4.01	45.66 4.24	48.11 4.47
108 2.74	4.34 0.40	6.94 0.64	9.54 0.89	12.14 1.13	14.75 1.37	17.35 1.61	19.95 1.85	22.55 2.10	25.16 2.34	27.76 2.58	30.36 2.82	32.96 3.06	35.57 3.30	38.17 3.55	40.77 3.79	43.37 4.03	45.98 4.27	48.58 4.51	51.18 4.75
114 2.90	4.70 0.44	7.53 0.70	10.35 0.96	13.17 1.22	15.99 1.49	18.81 1.75	21.63 2.01	24.46 2.27	27.28 2.53	30.10 2.80	32.92 3.06	35.74 3.32	38.57 3.58	41.39 3.84	44.21 4.11	47.03 4.37	49.85 4.63	52.68 4.89	55.50 5.16
120 3.05	4.86 0.45	7.78 0.72	10.69 0.99	13.61 1.26	16.52 1.54	19.44 1.81	22.35 2.08	25.27 2.35	28.19 2.62	31.10 2.89	34.02 3.16	36.93 3.43	39.85 3.70	42.77 3.97	45.68 4.24	48.60 4.51	51.51 4.79	54.43 5.06	57.35 5.33



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1606SR-2 9-17-03R	1606KD



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
6" (152) DEEP • K BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1606KD (1606SR)**

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

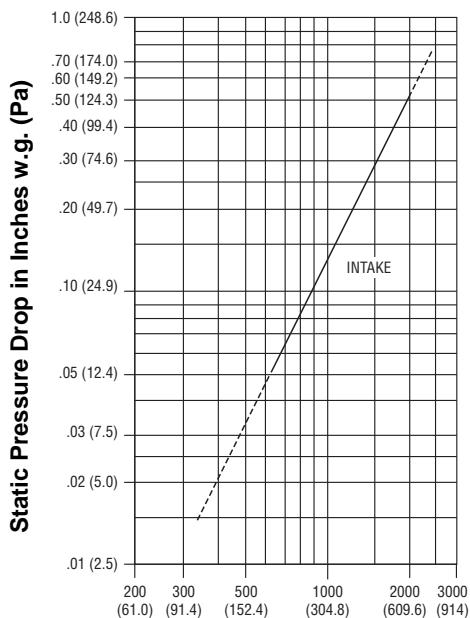
Free Area %	50%
Free Area sq. ft. (sq. m.)	7.93 (0.74)
I N T A K E Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1017 fpm (310 m/min.)
Air Volume at 1017 fpm	8065 cfm (3806 l/s)
Free Area Velocity	
Pressure Drop @ 1017 fpm	.14 in. w.g. (35 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1606KD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1606SR-2 9 - 17 - 03R	1606KD



EXTRUDED ALUMINUM STATIONARY LOUVER 4" (102) DEEP • DRAINABLE BLADE MODEL: 1604D (1604SD)

Model 1604D, Drainable blade type louver, provides excellent weather protection in a 4" (102) deep frame, with good air performance and pleasing aesthetics that compliment any structure's exterior styling. Suitable for use in exhaust and low to medium velocity intake applications, the drainable blade design utilizes rain gutters that divert collected water down concealed side downspouts and out the sill. Blades are reinforced with full length integral bosses for superior strength and the design provides good air performance through it's 52% free area as well as maximum protection against the elements. Model 1604D is available with channel or flanged type frame to suit most architectural and mechanical installation requirements and is AMCA Licensed.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 4" (102) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048).
70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

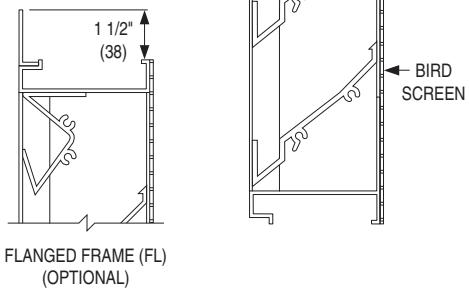
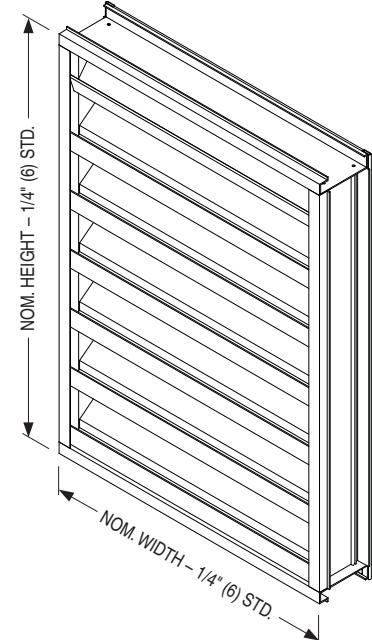
- | | |
|--------------------------------------|---|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

Color Anodized:

- | | | | |
|--------------------------------------|---------------|--------------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |



FLANGED FRAME (FL)
(OPTIONAL)

Page 1 of 3

Dimensions are in inches (mm).

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	9 - 16 - 11	1600	2 - 2 - 11	1604D



**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1604D (1604SD)**

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters																		
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
12 0.30	0.31 0.03	0.50 0.05	0.68 0.06	0.87 0.08	1.06 0.10	1.24 0.12	1.43 0.13	1.62 0.15	1.80 0.17	1.99 0.18	2.18 0.20	2.36 0.22	2.55 0.24	2.74 0.25	2.92 0.27	3.11 0.29	3.30 0.31	3.48 0.32	3.67 0.34
18 0.46	0.54 0.05	0.87 0.08	1.20 0.11	1.52 0.14	1.85 0.17	2.18 0.20	2.50 0.23	2.83 0.26	3.16 0.29	3.48 0.32	3.81 0.35	4.14 0.38	4.47 0.41	4.79 0.45	5.12 0.48	5.45 0.51	5.77 0.54	6.10 0.57	6.43 0.60
24 0.61	0.78 0.07	1.24 0.12	1.71 0.16	2.18 0.20	2.64 0.25	3.11 0.29	3.58 0.33	4.04 0.38	4.51 0.42	4.98 0.46	5.44 0.51	5.91 0.55	6.38 0.59	6.85 0.64	7.31 0.68	7.78 0.72	8.25 0.77	8.71 0.81	9.18 0.85
30 0.76	1.06 0.10	1.69 0.16	2.33 0.22	2.97 0.28	3.60 0.33	4.24 0.39	4.87 0.45	5.51 0.51	6.14 0.57	6.78 0.63	7.41 0.69	8.05 0.75	8.69 0.81	9.32 0.87	9.96 0.92	10.59 0.98	11.23 1.04	11.86 1.10	12.50 1.16
36 0.91	1.29 0.12	2.07 0.19	2.84 0.26	3.62 0.34	4.39 0.41	5.17 0.48	5.95 0.55	6.72 0.62	7.50 0.70	8.27 0.77	9.05 0.84	9.82 0.91	10.60 0.98	11.37 1.06	12.15 1.13	12.93 1.20	13.70 1.27	14.48 1.34	15.25 1.42
42 1.07	1.57 0.15	2.52 0.23	3.46 0.32	4.41 0.41	5.35 0.50	6.30 0.58	7.24 0.67	8.18 0.76	9.13 0.85	10.07 0.94	11.02 1.02	11.96 1.11	12.91 1.20	13.85 1.29	14.79 1.37	15.74 1.46	16.68 1.55	17.63 1.64	18.57 1.73
48 1.22	1.81 0.17	2.89 0.27	3.98 0.37	5.06 0.47	6.14 0.57	7.23 0.67	8.26 0.77	9.40 0.87	10.48 0.97	11.57 1.07	12.65 1.18	13.74 1.28	14.82 1.38	15.90 1.48	16.99 1.58	18.07 1.68	19.16 1.78	20.24 1.88	21.33 1.98
54 1.37	2.04 0.19	3.27 0.30	4.49 0.42	5.71 0.53	6.94 0.64	8.16 0.76	9.39 0.87	10.61 0.99	11.84 1.10	13.06 1.21	14.28 1.33	15.51 1.44	16.73 1.55	17.96 1.67	19.18 1.78	20.41 1.90	21.63 2.01	22.86 2.12	24.08 2.24
60 1.52	2.32 0.22	3.72 0.35	5.11 0.47	6.50 0.60	7.89 0.73	9.29 0.86	10.68 0.99	12.07 1.12	13.47 1.25	14.86 1.38	16.25 1.51	17.65 1.64	19.04 1.77	20.43 1.90	21.83 2.03	23.22 2.16	24.61 2.29	26.01 2.42	27.40 2.55
66 1.68	2.56 0.24	4.09 0.38	5.62 0.52	7.15 0.66	8.69 0.81	10.22 0.95	11.75 1.09	13.29 1.23	14.82 1.38	16.35 1.52	17.89 1.66	19.42 1.80	20.95 1.95	22.49 2.09	24.02 2.23	25.55 2.37	27.09 2.52	28.62 2.66	30.15 2.80
72 1.83	2.84 0.26	4.54 0.42	6.24 0.58	7.94 0.74	9.64 0.90	11.35 1.05	13.05 1.21	14.75 1.37	16.45 1.53	18.15 1.69	19.86 1.84	21.56 2.00	23.26 2.16	24.96 2.32	26.66 2.48	28.37 2.64	30.07 2.79	31.77 2.95	33.47 3.11
78 1.98	3.07 0.29	4.91 0.46	6.75 0.63	8.60 0.80	10.44 0.97	12.28 1.14	14.12 1.31	15.96 1.48	17.81 1.65	19.65 1.83	21.49 2.00	23.33 2.17	25.17 2.34	27.02 2.51	28.86 2.68	30.70 2.85	32.54 3.02	34.38 3.19	36.23 3.37
84 2.13	3.30 0.31	5.29 0.49	7.27 0.68	9.25 0.86	11.23 1.04	13.21 1.23	15.20 1.41	17.18 1.60	19.16 1.78	21.14 1.96	23.12 2.15	25.11 2.33	27.09 2.52	29.07 2.70	31.05 2.88	33.03 3.07	35.02 3.25	37.00 3.44	38.98 3.62
90 2.29	3.58 0.33	5.74 0.53	7.89 0.73	10.04 0.93	12.19 1.13	14.34 1.33	16.49 1.53	18.64 1.73	20.79 1.93	22.94 2.13	25.09 2.33	27.24 2.53	29.39 2.73	31.55 2.93	33.70 3.13	35.85 3.33	38.00 3.53	40.15 3.73	42.30 3.93
96 2.44	3.82 0.35	6.11 0.57	8.40 0.78	10.69 0.99	12.98 1.21	15.27 1.42	17.56 1.63	19.85 1.84	22.15 2.06	24.44 2.27	26.73 2.48	29.02 2.70	31.31 2.91	33.60 3.12	35.89 3.33	38.18 3.55	40.47 3.76	42.76 3.97	45.05 4.19
102 2.59	4.10 0.38	6.56 0.61	9.02 0.84	11.48 1.07	13.94 1.29	16.40 1.52	18.86 1.75	21.32 1.98	23.78 2.21	26.24 2.44	28.70 2.67	31.16 2.89	33.62 3.12	36.08 3.33	38.53 3.55	40.99 3.76	43.45 3.97	45.91 4.19	48.37 4.49
108 2.74	4.33 0.40	6.93 0.64	9.53 0.89	12.13 1.13	14.73 1.37	17.33 1.61	19.93 1.85	22.53 2.09	25.13 2.33	27.73 2.58	30.33 2.82	32.93 3.06	35.53 3.30	38.13 3.54	40.73 3.78	43.33 4.03	45.93 4.27	48.53 4.51	51.13 4.75
114 2.90	4.57 0.42	7.31 0.68	10.05 0.93	12.79 1.19	15.53 1.44	18.26 1.70	21.00 1.95	23.74 2.21	26.48 2.46	29.22 2.71	31.96 2.97	34.70 3.22	37.44 3.48	40.18 3.73	42.92 3.99	45.66 4.24	48.40 4.50	51.14 4.75	53.88 5.01
120 3.05	4.85 0.45	7.76 0.72	10.66 0.99	13.57 1.26	16.48 1.53	19.39 1.80	22.30 2.07	25.21 2.34	28.12 2.61	31.02 2.88	33.93 3.15	36.84 3.42	39.75 3.69	42.66 3.96	45.57 4.23	48.48 4.50	51.38 4.77	54.29 5.04	57.20 5.31



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).

DATE: 9 - 16 - 11 | B SERIES: 1600 | SUPERSEDES: 2 - 2 - 11 | DRAWING NO.: 1604D



**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1604D (1604SD)**

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

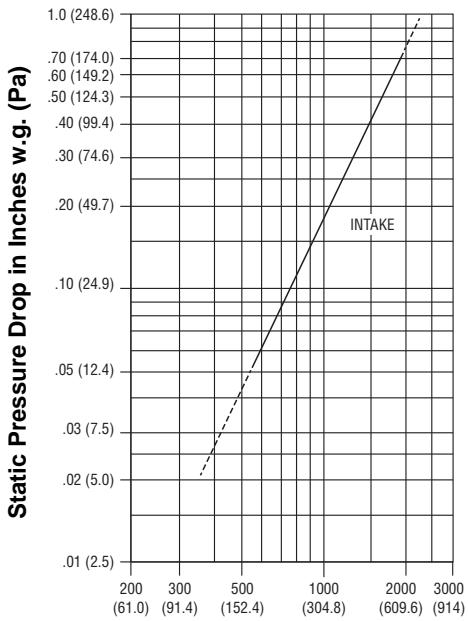
Free Area %	52%
Free Area sq. ft. (sq. m.)	8.26 (0.77)
Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	906 fpm (276 m/min.)
Air Volume at 906 fpm	7484 cfm (3532 l/s)
Free Area Velocity	
Pressure Drop @ 906 fpm	.15 in. w.g. (37 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1604D shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
9 - 16 - 11	1600	2 - 2 - 11	1604D



EXTRUDED ALUMINUM STATIONARY LOUVER 6" (152) DEEP • DRAINABLE BLADE MODEL: 1606D (1606SD)

Model 1606D is a drainable blade type louver that provides excellent weather protection, good air performance and aesthetics that compliment any building design. Suitable for use in exhaust and low to medium velocity intake applications, the drainable blade design utilizes rain gutters that divert collected water down concealed side downspouts and out the sill. Blades are reinforced with full length integral bosses for superior strength and the design, with a free area of 52%, exhibits low pressure drop characteristics throughout the full airflow range. Model 1606D is available with channel or flanged type frame to suit most architectural and mechanical installation requirements.

STANDARD CONSTRUCTION:

FRAME: 6" (152) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 6" (152) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

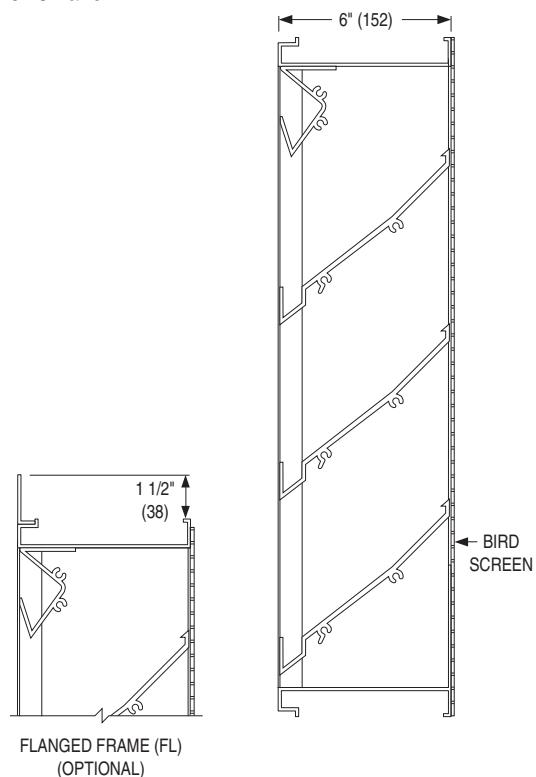
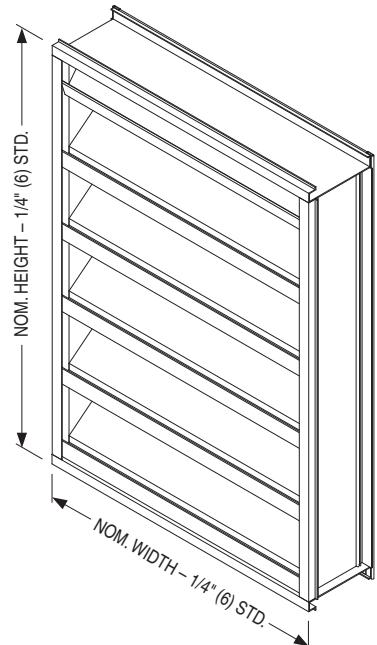
- | | |
|--------------------------------------|---|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar [®]). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar [®]). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

Color Anodized:

- | | | | |
|--------------------------------------|---------------|--------------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |



SCHEDULE TYPE:				
PROJECT:	Page 1 of 2 Dimensions are in inches (mm).			
ENGINEER:				
CONTRACTOR:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
	12 - 1 - 10	1600	1606SD-1 6 - 25 - 08	1606D



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
6" (152) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1606D (1606SD)**

FREE AREA in Square Feet and Square Meters

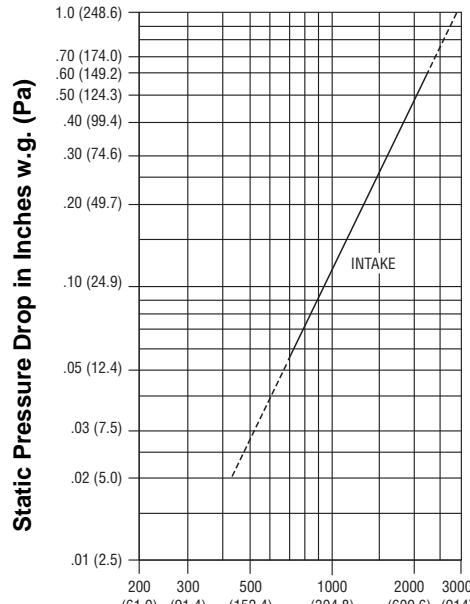
Height in Inches and Meters	Width in Inches and Meters																		
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
12 0.30	0.18 0.02	0.29 0.03	0.40 0.04	0.51 0.05	0.62 0.06	0.72 0.07	0.83 0.08	0.94 0.09	1.05 0.10	1.15 0.11	1.26 0.12	1.37 0.13	1.48 0.14	1.59 0.15	1.69 0.16	1.80 0.17	1.91 0.18	2.02 0.19	2.12 0.20
18 0.46	0.47 0.04	0.74 0.07	1.02 0.09	1.29 0.12	1.57 0.15	1.84 0.17	2.12 0.20	2.39 0.22	2.67 0.25	2.94 0.30	3.22 0.32	3.49 0.35	3.77 0.38	4.04 0.40	4.32 0.43	4.59 0.43	4.87 0.45	5.14 0.48	5.41 0.50
24 0.61	0.75 0.07	1.20 0.11	1.64 0.15	2.08 0.19	2.52 0.23	2.96 0.28	3.40 0.32	3.85 0.36	4.29 0.40	4.73 0.44	5.17 0.48	5.61 0.52	6.05 0.56	6.50 0.60	6.94 0.64	7.38 0.69	7.82 0.73	8.26 0.77	8.71 0.81
30 0.76	1.04 0.10	1.65 0.15	2.26 0.21	2.87 0.27	3.47 0.32	4.08 0.38	4.69 0.44	5.30 0.49	5.91 0.55	6.52 0.61	7.13 0.66	7.73 0.72	8.34 0.78	8.95 0.83	9.56 0.89	10.17 0.94	10.78 1.00	11.39 1.06	12.00 1.11
36 0.91	1.32 0.12	2.10 0.20	2.88 0.27	3.65 0.34	4.43 0.41	5.20 0.48	5.98 0.56	6.75 0.63	7.53 0.70	8.31 0.77	9.08 0.84	9.86 0.92	10.63 0.99	11.41 1.06	12.18 1.13	12.96 1.20	13.73 1.28	14.51 1.35	15.29 1.42
42 1.07	1.61 0.15	2.55 0.24	3.50 0.32	4.44 0.41	5.38 0.50	6.32 0.59	7.27 0.67	8.21 0.76	9.15 0.85	10.09 0.94	11.04 1.03	11.98 1.11	12.92 1.20	13.86 1.29	14.81 1.38	15.75 1.46	16.69 1.55	17.63 1.64	18.58 1.73
48 1.22	1.84 0.17	2.92 0.27	4.00 0.37	5.08 0.47	6.16 0.57	7.24 0.67	8.32 0.77	9.40 0.87	10.48 0.97	11.56 1.07	12.64 1.17	13.72 1.28	14.80 1.38	15.88 1.48	16.96 1.58	18.04 1.68	19.12 1.78	20.20 1.88	21.28 1.98
54 1.37	2.13 0.20	3.38 0.31	4.62 0.43	5.87 0.55	7.12 0.66	8.36 0.78	9.61 0.89	10.86 1.01	12.11 1.12	13.35 1.24	14.60 1.36	15.85 1.47	17.09 1.59	18.34 1.70	19.59 1.82	20.83 1.94	22.08 2.05	23.33 2.17	24.57 2.28
60 1.52	2.42 0.22	3.83 0.36	5.24 0.49	6.66 0.62	8.07 0.75	9.48 0.88	10.90 1.01	12.31 1.14	13.73 1.28	15.14 1.41	16.55 1.54	17.97 1.67	19.38 1.80	20.80 1.93	22.21 2.06	23.62 2.19	25.04 2.33	26.45 2.46	27.86 2.59
66 1.68	2.70 0.25	4.28 0.40	5.86 0.54	7.44 0.69	9.02 0.84	10.60 0.99	12.19 1.13	13.77 1.28	15.35 1.43	16.93 1.57	18.51 1.72	20.09 1.87	21.67 2.01	23.25 2.16	24.83 2.31	26.41 2.45	27.99 2.60	29.57 2.75	31.15 2.89
72 1.83	2.94 0.27	4.65 0.43	6.37 0.59	8.09 0.75	9.81 0.91	11.53 1.07	13.24 1.23	14.96 1.39	16.68 1.55	18.40 1.71	20.12 1.87	21.84 2.03	23.55 2.19	25.27 2.35	26.99 2.51	28.71 2.67	30.43 2.83	32.14 2.99	33.86 3.15
78 1.98	3.22 0.30	5.11 0.47	6.99 0.65	8.88 0.82	10.76 1.00	12.65 1.17	14.53 1.35	16.42 1.53	18.30 1.70	20.19 1.88	22.07 2.05	23.96 2.23	25.84 2.40	27.73 2.58	29.61 2.75	31.50 2.93	33.38 3.10	35.27 3.28	37.15 3.45
84 2.13	3.51 0.33	5.56 0.52	7.61 0.71	9.66 0.90	11.71 1.09	13.77 1.28	15.82 1.47	17.87 1.66	19.92 1.85	21.97 2.04	24.03 2.23	26.08 2.42	28.13 2.61	30.18 2.80	32.24 2.99	34.29 3.19	36.34 3.38	38.39 3.57	40.44 3.76
90 2.29	3.79 0.35	6.01 0.56	8.23 0.76	10.45 0.97	12.67 1.18	14.89 1.38	17.11 1.59	19.32 1.80	21.54 2.00	23.76 2.21	25.98 2.41	28.20 2.62	30.42 2.83	32.64 3.03	34.86 3.24	37.08 3.44	39.30 3.65	41.51 3.86	43.73 4.06
96 2.44	4.03 0.37	6.38 0.59	8.74 0.81	11.09 1.03	13.45 1.25	15.81 1.47	18.16 1.69	20.52 1.91	22.88 2.13	25.23 2.34	27.59 2.56	29.95 2.78	32.30 3.00	34.66 3.22	37.02 3.44	39.37 3.66	41.73 3.88	44.09 4.10	46.44 4.31

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	52%
Free Area sq. ft. (sq. m.)	8.32 (0.77)
Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1012 fpm (308 m/min.)
Air Volume at 1012 fpm	8420 cfm (3973 l/s)
Free Area Velocity	
Pressure Drop @ 1012 fpm	.13 in. w.g. (32 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:			
CONTRACTOR:			
DATE	B SERIES	SUPERSEDES	DRAWING NO.
12 - 1 - 10	1600	1606SD-2 6-25-08	1606D



EXTRUDED ALUMINUM STATIONARY LOUVER 4" (102) DEEP • DUAL DRAINABLE BLADE MODEL: 1604DD

Model 1604DD, dual drainable blade type louver, provides maximum weather protection in a 4" (102) deep frame, with good air performance and pleasing aesthetics that compliment any structure's exterior styling. Standard construction features a drainable head that collects the water running down the building face and channels it out the concealed downspouts in the side frame, preventing it from flowing down into the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the dual drainable blade design utilizes double rain gutters that divert collected water down concealed side downspouts and out the sill. Blades are reinforced with full length integral bosses for superior strength and the design provides good air performance through its 51% free area as well as maximum protection against the elements. Model 1604DD is available with channel or flanged type frame to suit most architectural and mechanical installation requirements and is AMCA Licensed.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 4" (102) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).

MULLIONS: Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|--|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: _____. | |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

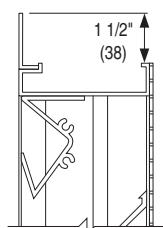
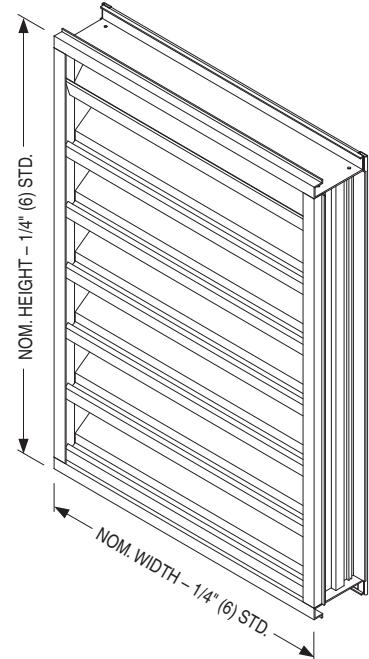
- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equiv. to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equiv. to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

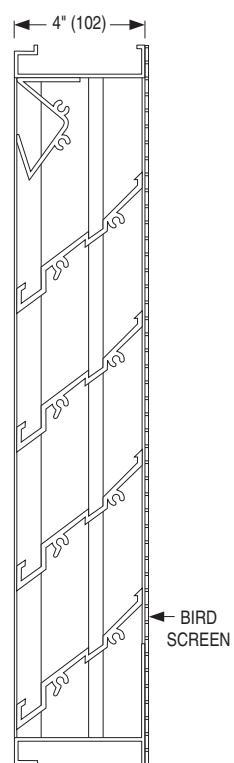
- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



FLANGED FRAME (FL)
(OPTIONAL)



Page 1 of 3
Dimensions are in inches (mm).

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	2 - 2 - 11	1600	9 - 22 - 03R	1604DD



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • DUAL DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1604DD**

FREE AREA in Square Feet and Square Meters

	Width in Inches and Meters																		
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
12 0.30	0.23 0.02	0.37 0.03	0.51 0.05	0.65 0.06	0.79 0.07	0.93 0.09	1.07 0.10	1.21 0.11	1.35 0.13	1.49 0.14	1.63 0.15	1.77 0.16	1.91 0.18	2.05 0.19	2.19 0.20	2.33 0.22	2.47 0.23	2.61 0.24	2.75 0.26
18 0.46	0.54 0.05	0.86 0.08	1.18 0.11	1.51 0.14	1.83 0.17	2.15 0.20	2.47 0.23	2.80 0.26	3.12 0.29	3.44 0.32	3.77 0.35	4.09 0.38	4.41 0.41	4.73 0.44	5.06 0.47	5.38 0.50	5.70 0.53	6.02 0.56	6.35 0.59
24 0.61	0.73 0.07	1.17 0.11	1.61 0.15	2.05 0.19	2.49 0.23	2.93 0.27	3.37 0.31	3.81 0.35	4.25 0.40	4.69 0.44	5.13 0.48	5.57 0.52	6.01 0.56	6.45 0.60	6.89 0.64	7.33 0.68	7.77 0.72	8.21 0.76	8.65 0.80
30 0.76	1.01 0.09	1.62 0.15	2.23 0.21	2.83 0.26	3.44 0.32	4.05 0.38	4.65 0.43	5.26 0.49	5.87 0.55	6.47 0.60	7.08 0.66	7.69 0.71	8.30 0.77	8.90 0.83	9.51 0.88	10.12 0.94	10.72 1.00	11.33 1.05	11.94 1.11
36 0.91	1.29 0.12	2.06 0.19	2.84 0.26	3.61 0.34	4.39 0.41	5.16 0.48	5.93 0.55	6.71 0.62	7.48 0.70	8.26 0.77	9.03 0.84	9.80 0.91	10.58 0.98	11.35 1.05	12.13 1.13	12.90 1.20	13.67 1.27	14.45 1.34	15.22 1.41
42 1.07	1.51 0.14	2.42 0.23	3.33 0.31	4.24 0.39	5.15 0.48	6.06 0.56	6.96 0.65	7.87 0.73	8.78 0.82	9.69 0.90	10.60 0.98	11.51 1.07	12.41 1.15	13.32 1.24	14.23 1.32	15.14 1.41	16.05 1.49	16.95 1.58	17.86 1.66
48 1.22	1.79 0.17	2.87 0.27	3.94 0.37	5.02 0.47	6.09 0.57	7.17 0.67	8.14 0.76	9.32 0.87	10.39 0.97	11.47 1.07	12.54 1.17	13.62 1.27	14.69 1.37	15.77 1.46	16.84 1.56	17.92 1.66	18.99 1.76	20.07 1.86	21.14 1.96
54 1.37	2.07 0.19	3.31 0.31	4.55 0.42	5.80 0.54	7.04 0.65	8.28 0.77	9.52 0.88	10.76 1.00	12.00 1.12	13.25 1.23	14.49 1.35	15.73 1.46	16.97 1.58	18.21 1.69	19.46 1.81	20.70 1.92	21.94 2.04	23.18 2.15	24.42 2.27
60 1.52	2.29 0.21	3.67 0.34	5.05 0.47	6.42 0.60	7.80 0.72	9.18 0.85	10.55 0.98	11.93 1.11	13.30 1.24	14.68 1.36	16.06 1.49	17.43 1.62	18.81 1.75	20.19 1.88	21.56 2.00	22.94 2.13	24.32 2.26	25.69 2.39	27.07 2.51
66 1.68	2.58 0.24	4.13 0.38	5.68 0.53	7.23 0.67	8.78 0.82	10.32 0.96	11.87 1.10	13.42 1.25	14.97 1.39	16.52 1.53	18.07 1.68	19.61 1.82	21.16 1.97	22.71 2.11	24.26 2.25	25.81 2.40	27.36 2.54	28.91 2.69	30.45 2.83
72 1.83	2.80 0.26	4.47 0.42	6.15 0.57	7.83 0.73	9.50 0.88	11.18 1.04	12.86 1.19	14.54 1.35	16.21 1.51	17.89 1.66	19.57 1.82	21.25 1.97	22.92 2.13	24.60 2.29	26.28 2.44	27.96 2.60	29.63 2.75	31.31 2.91	32.99 3.06
78 1.98	3.07 0.29	4.92 0.46	6.76 0.63	8.61 0.80	10.45 0.97	12.30 1.14	14.14 1.31	15.99 1.49	17.83 1.66	19.67 1.83	21.52 2.00	23.36 2.17	25.21 2.34	27.05 2.51	28.90 2.68	30.74 2.86	32.59 3.03	34.43 3.20	36.28 3.37
84 2.13	3.35 0.31	5.36 0.50	7.38 0.69	9.39 0.87	11.40 1.06	13.41 1.25	15.42 1.43	17.43 1.62	19.44 1.81	21.45 1.99	23.47 2.18	25.48 2.37	27.49 2.55	29.50 2.74	31.51 2.93	33.52 3.11	35.53 3.30	37.55 3.49	39.56 3.67
90 2.29	3.58 0.33	5.72 0.53	7.87 0.73	10.01 0.93	12.16 1.13	14.30 1.33	16.45 1.53	18.59 1.73	20.74 1.93	22.88 2.13	25.03 2.33	27.17 2.52	29.32 2.72	31.46 2.92	33.61 3.12	35.75 3.32	37.90 3.52	40.04 3.72	42.19 3.92
96 2.44	3.85 0.36	6.17 0.57	8.48 0.79	10.79 1.00	13.10 1.22	15.42 1.43	17.73 1.65	20.04 1.86	22.35 2.08	24.67 2.29	26.98 2.51	29.29 2.72	31.60 2.94	33.91 3.15	36.23 3.37	38.54 3.58	40.85 3.80	43.16 4.01	45.48 4.22
102 2.59	4.14 0.38	6.62 0.61	9.10 0.85	11.58 1.08	14.06 1.31	16.55 1.54	19.03 1.77	21.51 2.00	23.99 2.23	26.47 2.46	28.95 2.69	31.44 2.92	33.92 3.15	36.40 3.38	38.88 3.61	41.36 3.84	43.85 4.07	46.33 4.30	48.81 4.53
108 2.74	4.36 0.40	6.97 0.65	9.58 0.89	12.20 1.13	14.81 1.38	17.42 1.62	20.04 1.86	22.65 2.10	25.27 2.35	27.88 2.59	30.49 2.83	33.11 3.08	35.72 3.32	38.33 3.56	40.95 3.80	43.56 4.05	46.17 4.29	48.79 4.53	51.40 4.78
114 2.90	4.63 0.43	7.42 0.69	10.20 0.95	12.98 1.21	15.76 1.46	18.54 1.72	21.32 1.98	24.10 2.24	26.88 2.50	29.66 2.76	32.44 3.01	35.22 3.27	38.00 3.53	40.78 3.79	43.56 4.05	46.34 4.31	49.13 4.56	51.91 4.82	54.69 5.08
120 3.05	4.86 0.45	7.77 0.72	10.69 0.99	13.60 1.26	16.51 1.53	19.43 1.80	22.34 2.08	25.26 2.35	28.17 2.62	31.09 2.89	34.00 3.16	36.91 3.43	39.83 3.70	42.74 3.97	45.66 4.24	48.57 4.51	51.49 4.78	54.40 5.05	57.32 5.32



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).

DATE B SERIES SUPERSEDES DRAWING NO.

2 - 2 - 11 1600 9 - 17 - 03R 1604DD



Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM STATIONARY LOUVER
4" (102) DEEP • DUAL DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1604DD**

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

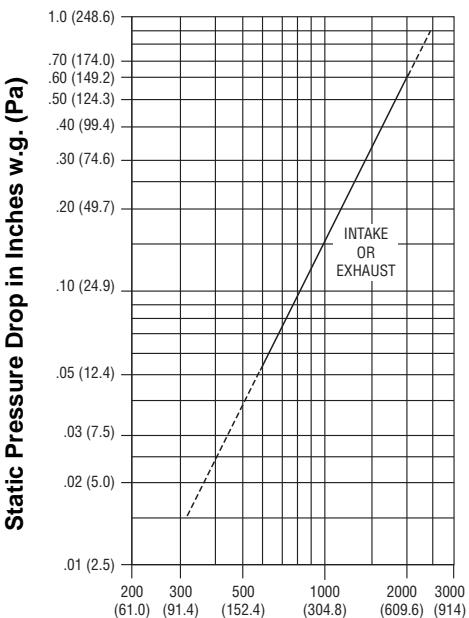
Free Area %	51%
Free Area sq. ft. (sq. m.)	8.14 (0.76)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	1000 fpm (305 m/min.)
	Air Volume at 1000 fpm
	8140 cfm (3841 l/s)
	Free Area Velocity
	.16 in. w.g. (40 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries certifies the Model 1604DD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	9 - 17 - 03R	1604DD



EXTRUDED ALUMINUM STATIONARY LOUVER 6" (152) DEEP • DUAL DRAINABLE BLADE MODEL: 1606DD

Model 1606DD is a dual drainable blade type louver that provides maximum weather protection, good air performance and aesthetics that compliment any building design. With the beginning point of water penetration at 1193 fpm (6.06 m/s) free area velocity, the design allows for optimal weather protection at higher airflow rates. Standard construction features a drainable head that collects the water running down the building face and channels it out the concealed downspouts in the side frame, preventing it from flowing down into the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the dual drainable blade design utilizes double rain gutters that divert collected water down concealed side downspouts and out the sill. Blades are reinforced with full length integral bosses for superior strength and the design exhibits low pressure drop characteristics throughout the full airflow range. Available with channel or flanged type frame to suit most architectural and mechanical installation requirements, Model 1606DD is engineered for maximum protection from the elements and is AMCA Licensed.

STANDARD CONSTRUCTION:

FRAME: 6" (152) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses.

BLADE ANGLE: Fixed at 37 degrees.

BLADE SPACING: Approx. 6" (152) on centers.

BLADE SUPPORT BRACKETS: Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" (25) to overall louver depth).

MULLIONS: Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|-------------------------------|------------------------------|---------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

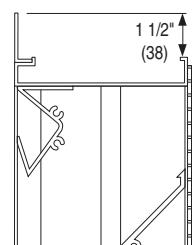
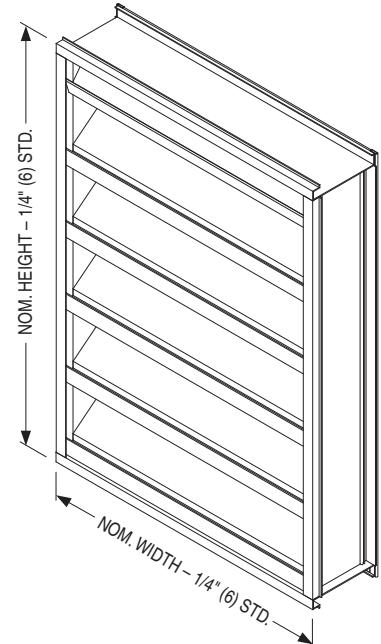
- | | |
|-------------------------------|--|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

Color Anodized:

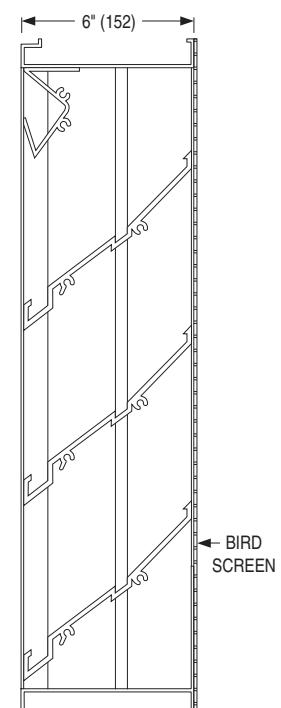
- | | | | |
|-------------------------------|---------------|-------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |



FLANGED FRAME (FL)
(OPTIONAL)



Page 1 of 3
Dimensions are in inches (mm).

SCHEDULE TYPE:	PROJECT:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
ENGINEER:					
CONTRACTOR:		2 - 2 - 11	1600	9 - 22 - 03R	1606DD



**EXTRUDED ALUMINUM LOUVER
6" (152) DEEP • DUAL DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1606DD**

FREE AREA in Square Feet and Square Meters

	Width in Inches and Meters																		
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05
12 0.30	0.18 0.02	0.29 0.03	0.39 0.04	0.50 0.05	0.61 0.06	0.72 0.07	0.82 0.08	0.93 0.09	1.04 0.10	1.15 0.11	1.25 0.12	1.36 0.13	1.47 0.14	1.58 0.15	1.68 0.16	1.79 0.17	1.90 0.18	2.01 0.19	2.11 0.20
18 0.46	0.43 0.04	0.69 0.06	0.95 0.09	1.21 0.11	1.47 0.14	1.73 0.16	1.99 0.19	2.25 0.21	2.51 0.23	2.77 0.26	3.03 0.28	3.29 0.31	3.55 0.33	3.81 0.35	4.07 0.38	4.33 0.40	4.59 0.43	4.85 0.45	5.11 0.47
24 0.61	0.69 0.06	1.10 0.10	1.51 0.14	1.92 0.18	2.33 0.22	2.75 0.26	3.16 0.29	3.57 0.33	3.98 0.37	4.40 0.41	4.81 0.45	5.22 0.48	5.63 0.52	6.04 0.56	6.46 0.60	6.87 0.64	7.28 0.68	7.69 0.71	8.10 0.75
30 0.76	0.95 0.09	1.51 0.14	2.08 0.19	2.65 0.25	3.22 0.30	3.78 0.35	4.35 0.40	4.92 0.46	5.49 0.51	6.05 0.56	6.62 0.62	7.19 0.67	7.76 0.72	8.32 0.77	8.89 0.83	9.46 0.88	10.02 0.93	10.59 0.98	11.16 1.04
36 0.91	1.21 0.11	1.93 0.18	2.65 0.25	3.37 0.31	4.10 0.38	4.82 0.45	5.54 0.51	6.27 0.58	6.99 0.65	7.71 0.72	8.44 0.78	9.16 0.85	9.88 0.92	10.60 0.99	11.33 1.05	12.05 1.12	12.77 1.19	13.50 1.25	14.22 1.32
42 1.07	1.46 0.14	2.34 0.22	3.22 0.30	4.10 0.38	4.98 0.46	5.86 0.54	6.74 0.63	7.62 0.71	8.50 0.79	9.37 0.87	10.25 0.95	11.13 1.03	12.01 1.12	12.89 1.20	13.77 1.28	14.65 1.36	15.53 1.44	16.41 1.52	17.28 1.61
48 1.22	1.72 0.16	2.76 0.26	3.79 0.35	4.83 0.45	5.86 0.54	6.90 0.64	7.92 0.74	8.96 0.83	10.00 0.93	11.03 1.03	12.07 1.12	13.10 1.22	14.14 1.31	15.17 1.41	16.21 1.51	17.24 1.60	18.27 1.70	19.31 1.79	20.34 1.89
54 1.37	1.98 0.18	3.17 0.29	4.36 0.41	5.55 0.52	6.74 0.63	7.93 0.74	9.12 0.85	10.31 0.96	11.50 1.07	12.69 1.18	13.88 1.29	15.07 1.40	16.26 1.51	17.45 1.62	18.64 1.73	19.83 1.84	21.02 1.95	22.21 2.06	23.40 2.17
60 1.52	2.30 0.21	3.68 0.34	5.06 0.47	6.44 0.60	7.81 0.73	9.19 0.85	10.57 0.98	11.95 1.11	13.33 1.24	14.71 1.37	16.09 1.49	17.47 1.62	18.85 1.75	20.22 1.88	21.60 2.01	22.98 2.14	24.36 2.26	25.74 2.39	27.12 2.52
66 1.68	2.50 0.23	4.00 0.37	5.50 0.51	7.01 0.65	8.51 0.79	10.01 0.93	11.51 1.07	13.01 1.21	14.51 1.35	16.01 1.49	17.52 1.63	19.02 1.77	20.52 1.91	22.02 2.05	23.52 2.19	25.02 2.32	26.52 2.46	28.03 2.60	29.53 2.74
72 1.83	2.77 0.26	4.44 0.41	6.10 0.57	7.76 0.72	9.43 0.88	11.09 1.03	12.75 1.18	14.42 1.34	16.08 1.49	17.74 1.65	19.41 1.80	21.07 1.96	22.73 2.11	24.40 2.27	26.06 2.42	27.72 2.58	29.39 2.73	31.05 2.88	32.71 3.04
78 1.98	3.02 0.28	4.83 0.45	6.65 0.62	8.46 0.79	10.27 0.95	12.09 1.12	13.90 1.29	15.71 1.46	17.53 1.63	19.34 1.80	21.15 1.96	22.96 2.13	24.78 2.30	26.59 2.47	28.40 2.64	30.22 2.81	32.03 2.98	33.84 3.14	35.65 3.31
84 2.13	3.28 0.30	5.25 0.49	7.22 0.67	9.19 0.85	11.15 1.04	13.12 1.22	15.09 1.40	17.06 1.58	19.03 1.77	21.00 1.95	22.97 2.13	24.93 2.32	26.90 2.50	28.87 2.68	30.84 2.86	32.81 3.05	34.78 3.23	36.74 3.41	38.71 3.60
90 2.29	3.54 0.33	5.66 0.53	7.79 0.72	9.91 0.92	12.04 1.12	14.16 1.32	16.28 1.51	18.41 1.71	20.53 1.91	22.66 2.10	24.78 2.30	26.90 2.50	29.03 2.70	31.15 2.89	33.28 3.09	35.40 3.29	37.52 3.49	39.65 3.68	41.77 3.88
96 2.44	3.80 0.35	6.08 0.56	8.36 0.78	10.64 0.99	12.92 1.20	15.20 1.41	17.48 1.62	19.76 1.84	22.04 2.05	24.32 2.26	26.60 2.47	28.88 2.68	31.16 2.89	33.44 3.11	35.72 3.32	38.00 3.53	40.28 3.74	42.56 3.95	44.84 4.17
102 2.59	4.06 0.38	6.49 0.60	8.93 0.83	11.36 1.06	13.80 1.28	16.24 1.51	18.67 1.73	21.11 1.96	23.54 2.19	25.98 2.41	28.41 2.64	30.85 2.87	33.28 3.09	35.72 3.32	38.15 3.54	40.59 3.77	43.02 4.00	45.46 4.22	47.89 4.45
108 2.74	4.32 0.40	6.91 0.64	9.50 0.88	12.09 1.12	14.68 1.36	17.27 1.60	19.87 1.85	22.46 2.09	25.05 2.33	27.64 2.57	30.23 2.81	32.82 3.05	35.41 3.29	38.00 3.53	40.60 3.77	43.19 4.01	45.78 4.25	48.37 4.49	50.96 4.73
114 2.90	4.58 0.43	7.32 0.68	10.07 0.94	12.82 1.19	15.56 1.45	18.31 1.70	21.06 1.96	23.80 2.21	26.55 2.47	29.30 2.72	32.04 2.98	34.79 3.23	37.54 3.49	40.28 3.74	43.03 4.00	45.77 4.25	48.52 4.51	51.27 4.76	54.01 5.02
120 3.05	4.84 0.45	7.74 0.72	10.64 0.99	13.54 1.26	16.45 1.53	19.35 1.80	22.25 2.07	25.15 2.34	28.06 2.61	30.96 2.88	33.86 3.15	36.76 3.42	39.66 3.68	42.57 3.95	45.47 4.22	48.37 4.49	51.27 4.76	54.18 5.03	57.08 5.30



SCHEDULE TYPE:
PROJECT:
ENGINEER:
CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).
DATE: 2 - 2 - 11 B SERIES: 1600 SUPERSEDES: 9 - 17 - 03R DRAWING NO.: 1606DD



**EXTRUDED ALUMINUM LOUVER
6" (152) DEEP • DUAL DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1606DD**

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

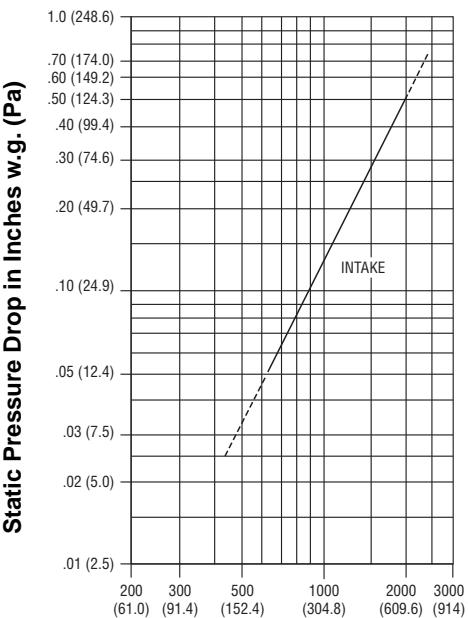
Free Area %	50%
Free Area sq. ft. (sq. m.)	7.92 (0.74)
Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1193 fpm (364 m/min.)
Air Volume at 1193 fpm	9449 cfm (4459 l/s)
Free Area Velocity	
Pressure Drop @ 1193 fpm	.18 in. w.g. (45 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1606DD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	
CONTRACTOR:	

Page 3 of 3
Dimensions are in inches (mm).
DATE B SERIES SUPERSEDES DRAWING NO.



EXTRUDED ALUMINUM STATIONARY LOUVER WIND-DRIVEN RAIN RESISTANT 5" (127) DEEP • HORIZONTAL BLADE MODEL: 1605WD (1605DD)

Model 1605WD wind-driven rain horizontal drainable blade louver provides maximum weather protection in a 5" (127) deep frame, with pleasing sight-proof aesthetics that compliment any structure's exterior styling. Suitable for use in exhaust and low to medium velocity intake applications, the drainable head and drainable blade design divert collected water down concealed side downspouts and out the sill. Blades are reinforced with full length integral bosses for superior strength and the 5" (127) deep channel type frame installs easily in most common wall configurations. Model 1605WD is AMCA Licensed for wind-driven rain and is engineered to be architecturally appealing as well as mechanically enduring.

STANDARD CONSTRUCTION:

- FRAME:** 5" (102) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.
- BLADES:** Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses.
- BLADE ANGLE:** Fixed at 30 degrees.
- BLADE SPACING:** Approx. 2" (51) on centers.
- BLADE SUPPORT BRACKETS:** Concealed type, factory installed on rear of louver on maximum 48" (1219) centers. Reinforced with 1" x 1" (25 x 25) angle (adds approx. 1" [25] to overall louver depth).
- MULLIONS:** Concealed type allowing continuous line appearance up to 120" (3048) wide. Larger assemblies require separate visible frames with downspouts.
- SCREEN:** 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).
- FINISH:** Mill.
- MINIMUM SIZE:** 12" W x 12" H (305 x 305).
- MAX. SINGLE SECTION SIZE:** 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). 70 sq. ft. (6.5m²). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | |
|---|---|
| <input type="checkbox"/> BSSS Type 304 S.S. Bird Screen. | <input type="checkbox"/> ESI Extended Sill. |
| <input type="checkbox"/> BSN No Bird Screen. | <input type="checkbox"/> FR1 1" (25) Filter Rack. |
| <input type="checkbox"/> ISA Aluminum Insect Screen. | <input type="checkbox"/> FR2 2" (51) Filter Rack. |
| <input type="checkbox"/> ISSS Type 304 S.S. Insect Screen. | <input type="checkbox"/> PAC Perimeter Anchor Clips. |
| <input type="checkbox"/> WE Welded Construction. | <input type="checkbox"/> Other: _____. |

OPTIONAL FINISHES:

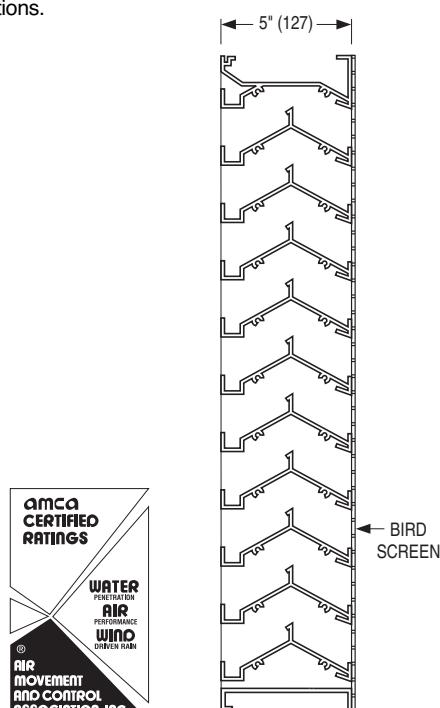
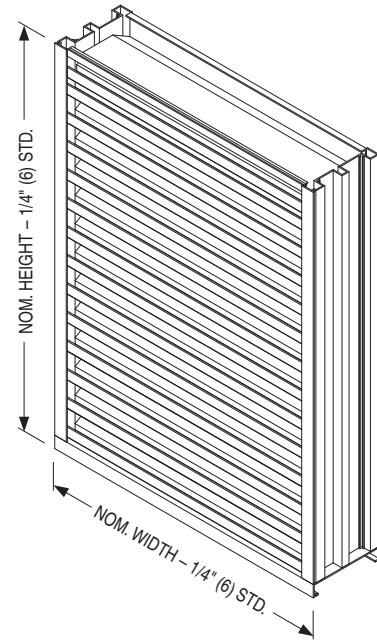
- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	DATE
CONTRACTOR:	B SERIES

Page 1 of 3
Dimensions are in inches (mm).

2 - 2 - 11	1600	1605DD-1 4-28-08	1605WD
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**EXTRUDED ALUMINUM STATIONARY LOUVER
WIND DRIVEN RAIN RESISTANT
5" (127) DEEP • HORIZONTAL BLADE
PERFORMANCE DATA
MODEL: 1605WD (1605DD)**

FREE AREA in Square Feet and Square Meters

	Width in Inches and Meters																			
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52	66 1.68	72 1.83	78 1.98	84 2.13	90 2.29	96 2.44	102 2.59	108 2.74	114 2.90	120 3.05	
Height in Inches and Meters	12 0.30	0.35 0.03	0.56 0.05	0.77 0.07	0.98 0.09	1.18 0.11	1.39 0.13	1.60 0.15	1.81 0.17	2.01 0.19	2.22 0.21	2.43 0.23	2.64 0.24	2.84 0.26	3.05 0.28	3.26 0.30	3.47 0.32	3.67 0.34	3.88 0.36	4.09 0.38
	18 0.46	0.62 0.06	0.99 0.09	1.35 0.13	1.72 0.16	2.08 0.19	2.45 0.23	2.81 0.26	3.18 0.30	3.54 0.33	3.91 0.36	4.27 0.40	4.63 0.43	5.00 0.46	5.36 0.50	5.73 0.53	6.09 0.57	6.46 0.60	6.82 0.63	7.19 0.67
	24 0.61	0.84 0.08	1.33 0.12	1.82 0.17	2.31 0.21	2.80 0.26	3.29 0.31	3.79 0.35	4.28 0.40	4.77 0.44	5.26 0.49	5.75 0.53	6.24 0.58	6.73 0.63	7.22 0.67	7.71 0.72	8.21 0.76	8.70 0.81	9.19 0.85	9.68 0.90
	30 0.76	1.11 0.10	1.76 0.16	2.40 0.22	3.05 0.28	3.70 0.34	4.35 0.40	5.00 0.46	5.65 0.52	6.30 0.58	6.94 0.65	7.59 0.71	8.24 0.77	8.89 0.83	9.54 0.89	10.19 0.95	10.83 1.01	11.48 1.07	12.13 1.13	12.78 1.19
	36 0.91	1.38 0.13	2.18 0.20	2.99 0.28	3.79 0.35	4.60 0.43	5.41 0.50	6.21 0.58	7.02 0.65	7.82 0.73	8.63 0.80	9.43 0.88	10.24 0.95	11.05 1.03	11.85 1.10	12.66 1.18	13.46 1.25	14.27 1.33	15.07 1.40	15.88 1.48
	42 1.07	1.65 0.15	2.61 0.24	3.57 0.33	4.53 0.42	5.50 0.51	6.46 0.60	7.42 0.69	8.39 0.78	9.35 0.87	10.31 0.96	11.28 1.05	12.24 1.14	13.20 1.23	14.17 1.32	15.13 1.41	16.09 1.49	17.05 1.58	18.02 1.67	18.98 1.76
	48 1.22	1.91 0.18	3.03 0.28	4.15 0.39	5.28 0.49	6.40 0.59	7.52 0.70	8.64 0.80	9.76 0.91	10.88 1.01	12.00 1.11	13.12 1.22	14.24 1.32	15.36 1.43	16.48 1.53	17.60 1.64	18.72 1.74	19.84 1.84	20.96 1.95	22.08 2.05
	54 1.37	2.13 0.20	3.38 0.31	4.62 0.43	5.87 0.55	7.12 0.66	8.36 0.78	9.61 0.89	10.86 1.01	12.10 1.12	13.35 1.24	14.60 1.36	15.84 1.47	17.09 1.59	18.34 1.70	19.59 1.82	20.83 1.94	22.08 2.05	23.33 2.17	24.57 2.28
	60 1.52	2.40 0.22	3.80 0.35	5.21 0.48	6.61 0.61	8.02 0.74	9.42 0.88	10.82 1.01	12.23 1.14	13.63 1.27	15.04 1.40	16.44 1.53	17.84 1.66	19.25 1.79	20.65 1.92	22.06 2.05	23.46 2.18	24.86 2.31	26.27 2.44	27.67 2.57
	66 1.68	2.67 0.25	4.23 0.39	5.79 0.54	7.35 0.68	8.91 0.83	10.47 0.97	12.04 1.12	13.60 1.26	15.16 1.41	16.72 1.55	18.28 1.70	19.84 1.84	21.40 1.99	22.96 2.13	24.52 2.28	26.08 2.42	27.64 2.57	29.20 2.71	30.76 2.86
	72 1.83	2.94 0.27	4.65 0.43	6.37 0.59	8.09 0.75	9.81 0.91	11.53 1.07	13.25 1.23	14.97 1.39	16.69 1.55	18.40 1.71	20.12 1.87	21.84 2.03	23.56 2.19	25.28 2.35	27.00 2.51	28.72 2.67	30.44 2.83	32.15 2.99	33.87 3.15
	78 1.98	3.20 0.30	5.08 0.47	6.96 0.65	8.83 0.82	10.71 0.99	12.59 1.17	14.46 1.34	16.34 1.52	18.21 1.69	20.09 1.87	21.97 2.04	23.84 2.21	25.72 2.39	27.59 2.56	29.47 2.74	31.35 2.91	33.22 3.09	35.10 3.26	36.97 3.43
	84 2.13	3.42 0.32	5.42 0.50	7.43 0.69	9.43 0.88	11.43 1.06	13.43 1.25	15.44 1.43	17.44 1.62	19.44 1.81	21.44 1.99	23.45 2.18	25.45 2.36	27.45 2.55	29.45 2.74	31.46 2.92	33.46 3.11	35.46 3.29	37.46 3.48	39.47 3.67
	90 2.29	3.69 0.34	5.85 0.54	8.01 0.74	10.17 0.94	12.33 1.15	14.49 1.35	16.65 1.55	18.81 1.75	20.97 1.95	23.13 2.15	25.29 2.35	27.45 2.55	29.61 2.75	31.77 2.95	33.93 3.15	36.09 3.35	38.25 3.55	40.41 3.75	42.57 3.95
	96 2.44	3.96 0.37	6.28 0.58	8.59 0.80	10.91 1.01	13.23 1.23	15.54 1.44	17.86 1.66	20.18 1.87	22.50 2.09	24.81 2.31	27.13 2.52	29.45 2.74	31.76 2.95	34.08 3.17	36.40 3.38	38.71 3.60	41.03 3.81	43.35 4.03	45.67 4.24
	102 2.59	4.18 0.39	6.69 0.62	9.20 0.85	11.71 1.09	14.22 1.32	16.73 1.55	19.24 1.79	21.74 2.02	24.25 2.25	26.76 2.49	29.27 2.72	31.78 2.95	34.29 3.19	36.80 3.42	39.31 3.65	41.82 3.88	44.33 4.12	46.83 4.35	49.34 4.58
	108 2.74	4.45 0.41	7.12 0.66	9.79 0.91	12.47 1.16	15.14 1.41	17.81 1.65	20.48 1.90	23.15 2.15	25.82 2.40	28.49 2.65	31.16 2.90	33.83 3.14	36.51 3.39	39.18 3.64	41.85 3.89	44.52 4.14	47.19 4.38	49.86 4.63	52.53 4.88
	114 2.90	4.72 0.44	7.56 0.70	10.39 0.97	13.22 1.23	16.06 1.49	18.89 1.75	21.72 2.02	24.55 2.28	27.39 2.54	30.22 2.81	33.05 3.07	35.89 3.33	38.72 3.60	41.55 3.86	44.39 4.12	47.22 4.39	50.05 4.65	52.89 4.91	55.72 5.18
	120 3.05	4.99 0.46	7.99 0.74	10.98 1.02	13.98 1.30	16.97 1.58	19.97 1.86	22.96 2.13	25.96 2.41	28.96 2.69	31.95 2.97	34.95 3.25	37.94 3.52	40.94 3.80	43.93 4.08	46.93 4.36	49.92 4.64	52.92 4.92	55.91 5.19	58.91 5.47



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).

DATE: 2 - 2 - 11 B SERIES: 1600 SUPERSEDES: 1605DD-2
4-28-08 DRAWING NO.: 1605WD



**EXTRUDED ALUMINUM STATIONARY LOUVER
WIND DRIVEN RAIN RESISTANT
5" (127) DEEP • HORIZONTAL BLADE
PERFORMANCE DATA
MODEL: 1605WD (1605DD)**

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	54%
Free Area sq. ft. (sq. m.)	8.64 (0.80)
INTAKE	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	1025 fpm (312 m/min.)
	Air Volume at 1025 fpm
Free Area Velocity	8856 cfm (4179 l/s)
Pressure Drop @ 1025 fpm	.32 in. w.g. (80 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

WIND DRIVEN RAIN PERFORMANCE

Core Ventilation Rate in fpm (m/s)	0 (0.0)	98 (0.5)	197 (1.0)	295 (1.5)	394 (2.0)	492 (2.5)	591 (3.0)	689 (3.5)
Free Area Ventilation Rate in fpm (m/s)	0 (0.0)	181 (0.9)	364 (1.8)	545 (2.8)	727 (3.7)	908 (4.6)	1091 (5.5)	1272 (6.5)
Effectiveness Ratio (%)	100	100	100	99.6	99.8	99.3	98.5	97.7
Penetration Class	A	A	A	A	A	A	B	B

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 3" per hour (76 mm/hour) with a wind velocity of 29.1 mph (13 m/s).

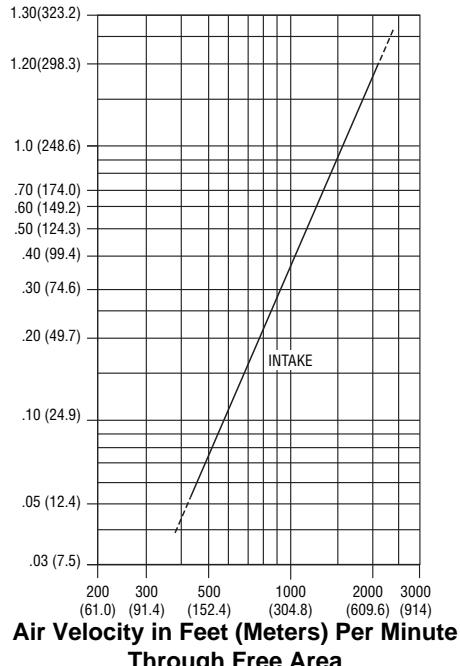
DISCHARGE LOSS COEFFICIENT CLASS (INTAKE):2

(Discharge Loss Coefficient Classification is as follows: 1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)



Nailor Industries Inc. certifies the Model 1605WD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance, water penetration and wind driven rain performance ratings.

PRESSURE DROP



Louver test size: 48" x 48" (1219 x 1219 mm).

Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	
CONTRACTOR:	

Page 3 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1605DD-2 4-28-08	1605WD



EXTRUDED ALUMINUM ADJUSTABLE LOUVER 4" (102) DEEP • DRAINABLE BLADE MODEL: 1604AD

Model 1604AD adjustable, drainable blade type louver combines superior weather protection and architecturally pleasing aesthetics with airflow control including tight shut-off. Suitable for use in exhaust and low to medium velocity intake applications, the design features a drainable blade with rain gutters that divert collected water down concealed side downspouts and out the sill. The blades can be operated manually or with an actuator to provide tight shut-off when desired. Blades are reinforced with full length integral bosses for superior strength and the design exhibits low pressure drop characteristics throughout the airflow range. Model 1604AD provides adjustable flexibility as well as maximum protection against the elements.

STANDARD CONSTRUCTION:

- FRAME:** 4" (102) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.
- BLADES:** Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses.
- BLADE SPACING:** Approx. 4" (102) on centers, at 37 1/2° angle (fully open).
- JAMB SEALS:** Compression type cambered metal.
- AXLES:** 1/2" (13) dia. plated steel.
- BEARINGS:** 1/2" (13) dia. stainless steel sleeve type.
- LINKAGE:** Plated steel. Concealed in frame.
- SCREEN:** 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).
- ACTUATOR:** Hand locking louver quadrant.
- FINISH:** Mill.
- MINIMUM SIZE:** 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 48" W x 96" H (1219 x 2438) (With Blade and/or Jamb Seals).
60" W x 96" H (1524 x 2438) (Without Seals). Larger sizes will be manufactured in sections with visible mullion side frame (downspouts are concealed) for field assembly.

OPTIONS:

- | | |
|---|---|
| <input type="checkbox"/> FL Flanged Frame. | <input type="checkbox"/> ESI Extended Sill. |
| <input type="checkbox"/> BPV PVC Blade Seals. | <input type="checkbox"/> FR1 1" (25) Filter Rack. |
| <input type="checkbox"/> JSN No Jamb Seals. | <input type="checkbox"/> FR2 2" (51) Filter Rack. |
| <input type="checkbox"/> BSSS Type 304 S.S. Bird Screen. | <input type="checkbox"/> PAC Perimeter Anchor Clips. |
| <input type="checkbox"/> BSN No Bird Screen. | <input type="checkbox"/> ACT Electric or Pneumatic Actuator. |
| <input type="checkbox"/> ISA Aluminum Insect Screen. | Specify: _____. |
| <input type="checkbox"/> ISSS Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: _____. |
| <input type="checkbox"/> WE Welded Construction. | |

OPTIONAL FINISHES:

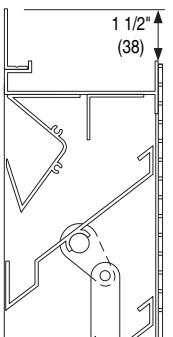
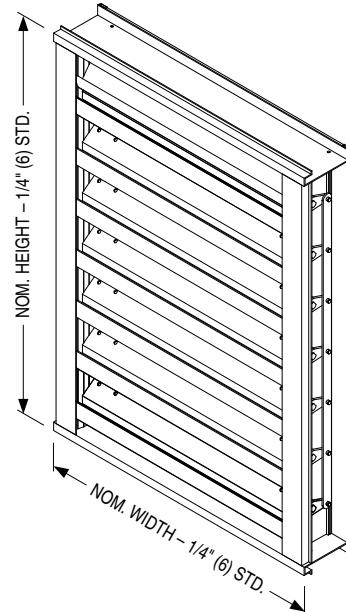
- | | |
|--|---|
| <input type="checkbox"/> PC3 Powder Coat AAMA 2603. Color: _____. | <input type="checkbox"/> PC4 High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____. | |
| <input type="checkbox"/> PCC Prime Coat. | |
| <input type="checkbox"/> AN04 Clear Anodized 204-R1. | |
| <input type="checkbox"/> AN15 Clear Anodized 215-R1. | |

Color Anodized:

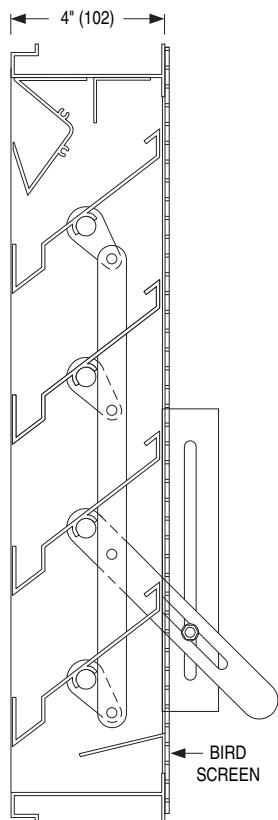
- | | |
|--|---|
| <input type="checkbox"/> ANLB Light Bronze. | <input type="checkbox"/> ANMB Medium Bronze. |
| <input type="checkbox"/> ANDB Dark Bronze. | <input type="checkbox"/> ANBK Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|--|---|
| <input type="checkbox"/> U00 Exact Size. | <input type="checkbox"/> U38 Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 Undersize 1/2" (12.7). | |



FLANGED FRAME (FL)
(OPTIONAL)



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	NEW	1604AD



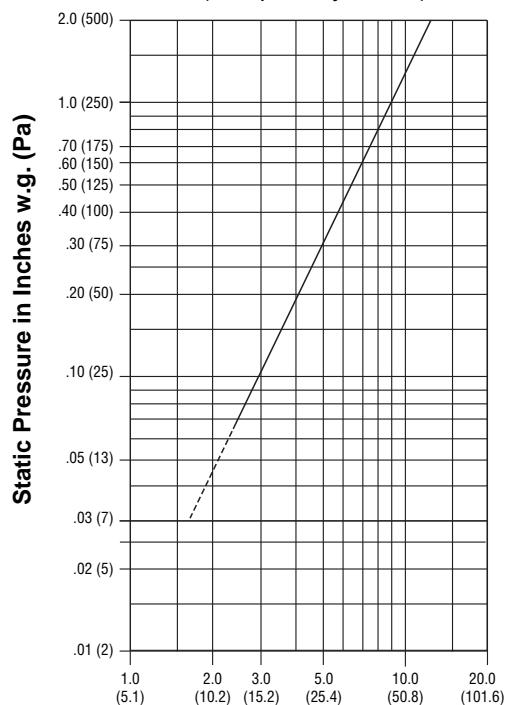
Nailor[®]
Industries Inc.

**EXTRUDED ALUMINUM ADJUSTABLE LOUVER
4" (102) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1604AD**

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 .30	0.22 0.02	0.39 0.04	0.56 0.05	0.73 0.07	0.90 0.08	1.07 0.10	1.24 0.12	1.41 0.13	1.58 0.15
18 .46	0.39 0.04	0.69 0.06	1.00 0.09	1.30 0.12	1.60 0.15	1.90 0.18	2.21 0.27	2.51 0.31	2.81 0.26
24 .61	0.60 0.06	1.06 0.10	1.53 0.14	1.99 0.18	2.45 0.23	2.92 0.27	3.38 0.31	3.84 0.36	4.31 0.40
30 .76	0.77 0.07	1.37 0.13	1.96 0.18	2.56 0.24	3.16 0.29	3.75 0.35	4.35 0.40	4.95 0.46	5.54 0.51
36 .91	0.98 0.09	1.74 0.16	2.49 0.23	3.25 0.30	4.01 0.37	4.77 0.44	5.52 0.51	6.28 0.58	7.04 0.65
42 1.07	1.15 0.11	2.04 0.19	2.93 0.27	3.82 0.36	4.71 0.44	5.60 0.52	6.49 0.60	7.38 0.69	8.27 0.77
48 1.22	1.36 0.13	2.41 0.22	3.46 0.32	4.51 0.42	5.56 0.52	6.61 0.61	7.10 0.66	8.72 0.81	9.77 0.91
54 1.37	1.53 0.14	2.71 0.25	3.90 0.36	5.08 0.47	6.27 0.58	7.45 0.69	8.64 0.80	9.82 0.91	11.00 1.02
60 1.52	1.74 0.16	3.08 0.29	4.43 0.41	5.77 0.54	7.12 0.66	8.46 0.79	9.81 0.91	11.15 1.04	12.50 1.16
66 1.68	1.91 0.18	3.39 0.31	4.87 0.45	6.34 0.59	7.82 0.73	9.30 0.86	10.78 1.00	12.26 1.14	13.73 1.28
72 1.83	2.12 0.20	3.76 0.35	5.40 0.50	7.03 0.65	8.67 0.81	10.31 0.96	11.95 1.11	13.59 1.26	15.23 1.41
78 1.98	2.29 0.21	4.06 0.38	5.83 0.54	7.61 0.71	9.38 0.87	11.15 1.04	12.92 1.20	14.69 1.36	16.47 1.53
84 2.13	2.50 0.23	4.43 0.41	6.36 0.59	8.30 0.77	10.23 0.95	12.16 1.13	14.09 1.31	16.03 1.49	17.96 1.67
90 2.29	2.67 0.25	4.73 0.44	6.80 0.63	8.87 0.82	10.93 1.02	13.00 1.21	15.06 1.40	17.13 1.59	19.20 1.78
96 2.44	2.88 0.27	5.10 0.47	7.33 0.68	9.56 0.89	11.78 1.09	14.01 1.30	16.24 1.51	18.46 1.72	20.69 1.92

AIR LEAKAGE (Damper fully closed)



Leakage in CFM/ft.² (L/s/m²)

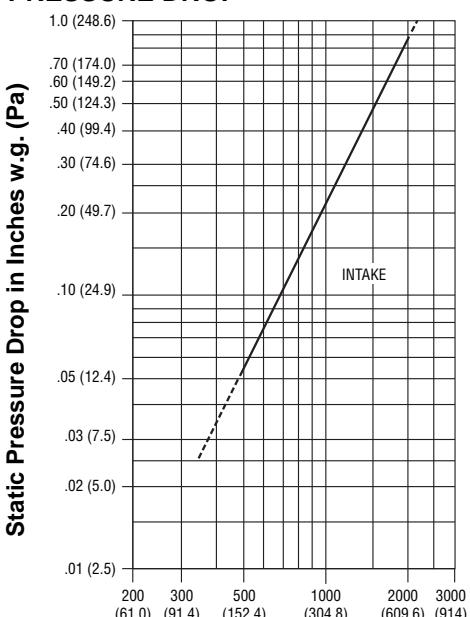
Louver test size: 48" x 48" (1219 x 1219 mm)
with blade and jamb seals.

**AIRFLOW / WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	44%
Free Area sq. ft. (sq. m.)	7.10 (0.66)
I N T A K E Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	953 fpm (290 m/min.)
Air Volume at 953 fpm	6766 cfm (3193 l/s)
Free Area Velocity	
Pressure Drop @ 953 fpm	.21 in. w.g. (52 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5 – 6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	2 - 2 - 11	1600	NEW	1604AD



EXTRUDED ALUMINUM ADJUSTABLE LOUVER 6" (152) DEEP • DRAINABLE BLADE MODEL: 1606AD

Model 1606AD adjustable, drainable blade type louver combines superior weather protection and architecturally pleasing aesthetics with airflow control including tight shut-off. Suitable for use in exhaust and low to medium velocity intake applications, the design features a drainable blade with rain gutters that divert collected water down concealed side downspouts and out the sill. The blades can be operated manually or with an actuator to provide tight shut-off when desired. Blades are reinforced with full length integral bosses for superior strength and the design exhibits low pressure drop characteristics throughout the airflow range. Model 1606AD provides adjustable flexibility as well as maximum protection against the elements.

STANDARD CONSTRUCTION:

FRAME: 6" (152) deep, Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.

BLADES: Type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses.

BLADE SPACING: Approx. 6" (152) on centers, at 37 1/2° angle (fully open).

JAMB SEALS: Compression type cambered metal.

AXLES: 1/2" (13) dia. plated steel.

BEARINGS: 1/2" (13) dia. stainless steel sleeve type.

LINKAGE: Plated steel. Concealed in frame.

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

ACTUATOR: Hand locking louver quadrant.

FINISH: Mill.

MINIMUM SIZE: 12" W x 12" H (305 x 305).

MAX. SINGLE SECTION SIZE: 48" W x 96" H (1219 x 2438) (With Blade and/or Jamb Seals).
60" W x 96" H (1524 x 2438) (Without Seals). Larger sizes will be manufactured in sections with visible mullion side frame (downspouts are concealed) for field assembly.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|---------------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BPV | PVC Blade Seals. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> JSN | No Jamb Seals. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ACT | Electric or Pneumatic Actuator. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | Specify: _____. | |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> | Other: _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

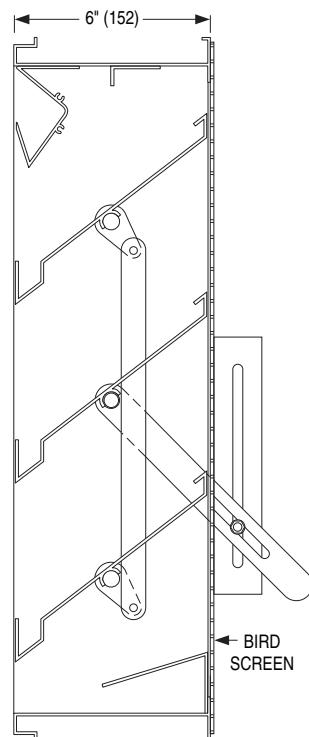
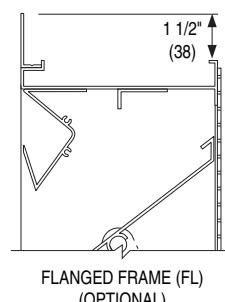
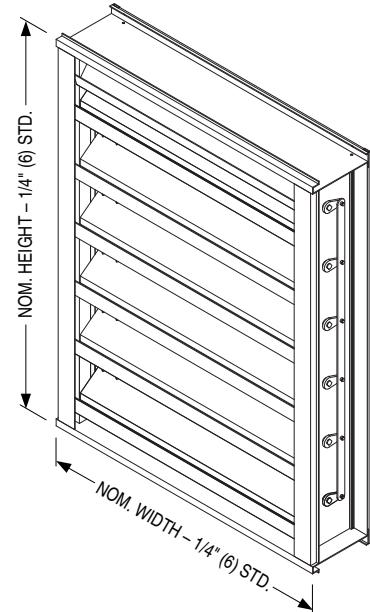
- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.
- AN04** Clear Anodized 204-R1.
- AN15** Clear Anodized 215-R1.

Color Anodized:

- ANLB** Light Bronze. **ANMB** Medium Bronze.
- ANDB** Dark Bronze. **ANBK** Black.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	NEW	1606AD



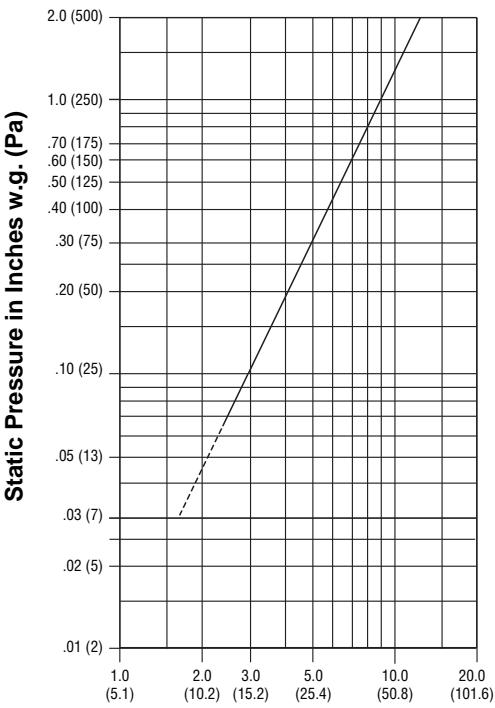
Nailor[®]
Industries Inc.

EXTRUDED ALUMINUM ADJUSTABLE LOUVER
6" (152) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1606AD

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 .30	0.20 0.02	0.35 0.03	0.50 0.05	0.65 0.06	0.80 0.07	0.95 0.09	1.11 0.10	1.26 0.12	1.41 0.13
18 .46	0.41 0.04	0.73 0.07	1.05 0.10	1.37 0.13	1.69 0.16	2.01 0.19	2.33 0.22	2.65 0.25	2.97 0.28
24 .61	0.59 0.06	1.05 0.10	1.51 0.14	1.97 0.18	2.43 0.23	2.89 0.27	3.35 0.31	3.81 0.35	4.27 0.40
30 .76	0.86 0.08	1.53 0.14	2.20 0.20	2.87 0.27	3.54 0.33	4.21 0.39	4.88 0.45	5.55 0.52	6.22 0.58
36 .91	1.07 0.10	1.90 0.18	2.72 0.25	3.55 0.33	4.38 0.41	5.21 0.48	6.03 0.56	6.86 0.64	7.69 0.71
42 1.07	1.28 0.12	2.28 0.21	3.27 0.30	4.26 0.40	5.25 0.49	6.25 0.58	7.24 0.67	8.23 0.76	9.23 0.86
48 1.22	1.48 0.14	2.63 0.24	3.78 0.35	4.92 0.46	6.07 0.56	7.22 0.67	8.15 0.76	9.51 0.88	10.66 0.99
54 1.37	1.67 0.15	2.96 0.27	4.25 0.39	5.54 0.51	6.83 0.63	8.13 0.75	9.42 0.87	10.71 0.99	12.00 1.11
60 1.52	1.87 0.17	3.32 0.31	4.77 0.44	6.22 0.58	7.67 0.71	9.12 0.85	10.57 0.98	12.01 1.12	13.46 1.25
66 1.68	2.05 0.19	3.63 0.34	5.22 0.49	6.81 0.63	8.39 0.78	9.98 0.93	11.57 1.07	13.15 1.22	14.74 1.37
72 1.83	2.27 0.21	4.02 0.37	5.77 0.54	7.53 0.70	9.28 0.86	11.04 1.03	12.79 1.19	14.55 1.35	16.30 1.51
78 1.98	2.48 0.23	4.41 0.41	6.33 0.59	8.25 0.77	10.17 0.95	12.10 1.12	14.02 1.30	15.94 1.48	17.86 1.66
84 2.13	2.70 0.25	4.79 0.45	6.88 0.64	8.97 0.83	11.07 1.03	13.16 1.22	15.25 1.42	17.34 1.61	19.43 1.81
90 2.29	2.91 0.27	5.16 0.48	7.41 0.69	9.66 0.90	11.91 1.11	14.16 1.32	16.42 1.53	18.67 1.73	20.92 1.94
96 2.44	3.15 0.29	5.59 0.52	8.03 0.75	10.47 0.97	12.91 1.20	15.35 1.43	17.79 1.65	20.23 1.88	22.67 2.11

AIR LEAKAGE (Damper fully closed)



Leakage in CFM/ft.² (L/s/m²)

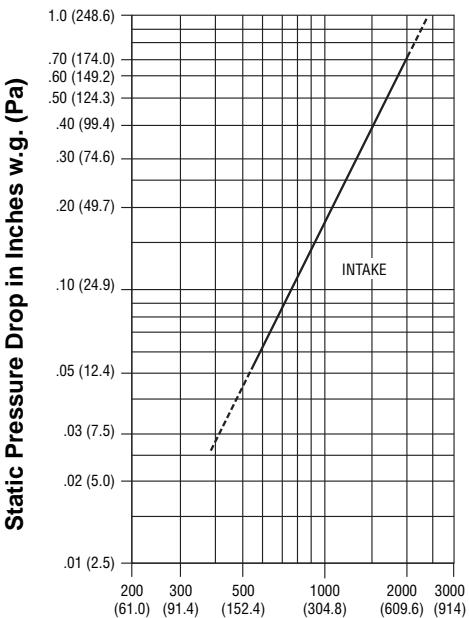
Louver test size: 48" x 48" (1219 x 1219 mm)
with blade and jamb seals.

AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

Free Area %	51%
Free Area sq. ft. (sq. m.)	8.15 (0.76)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	970 fpm (296 m/min.)
	Air Volume at 970 fpm
	7906 cfm (3731 l/s)
	Free Area Velocity
	.17 in. w.g. (42 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5 – 6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	NEW	1606AD



Nailor Industries Inc. certifies the Model 1606AD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.



**EXTRUDED ALUMINUM COMBINATION LOUVER/DAMPER
6" (152) DEEP • DRAINABLE BLADE
OPERABLE AIRFOIL DAMPER
MODEL: 1606CDAF**

Nailor Model 1606CDAF is an extruded aluminum combination louver and damper that incorporates front stationary drainable blades and rear adjustable airfoil blades all within a single frame. The design provides efficient air performance and aesthetics that compliment any building exterior, while providing tight shut-off when no airflow is required. The drainable blades provide excellent weather protection for exhaust and low to medium velocity intake air applications by utilizing rain gutters to divert collected water down concealed side downspouts and out the sill. Blades are reinforced with full length integral bosses for strength. Model 1606CDAF is available with channel or flanged type frame to suit most installation requirements, and is licensed by AMCA for assured performance.

STANDARD CONSTRUCTION:

- FRAME:** 6" (152) deep type 6063-T5 extruded aluminum, .125" (3.18) nominal wall thickness. Integral downspouts and caulking slot provided.
- BLADES:** Front stationary blades: drainable style, type 6063-T5 extruded aluminum, .080" (2.03) nominal wall thickness. Rear operable blades: Airfoil style, type 6063-T5 extruded aluminum.
- BLADE ANGLE:** Front blades fixed at 45 degrees.
- BLADE SPACING:** Approx. 5 1/2" (140) on centers.
- BLADE SEALS:** Silicone. Mechanically locked in place.
- JAMB SEALS:** Cambered stainless steel.
- BEARINGS:** 1/2" (13) dia. Oilitre® self-lubricating bronze.
- AXLES:** 1/2" (13) dia. plated steel double bolted to blades.
- LINKAGE:** Concealed in frame.
- SCREEN:** 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).
- ACTUATOR:** Hand locking louver quadrant.
- FINISH:** Mill.
- MINIMUM SIZE:** 12" W x 16" H (305 x 406).
- MAX. SINGLE SECTION SIZE:** 60" W x 96" H (1524 x 2438). Larger sizes will be manufactured in sections with visible mullion side frame (downspouts are concealed) for field assembly.

OPTIONS:

- | | |
|---|---|
| <input type="checkbox"/> FL Flanged Frame. | <input type="checkbox"/> FR1 1" (25) Filter Rack. |
| <input type="checkbox"/> BSSS Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR2 2" (51) Filter Rack. |
| <input type="checkbox"/> BSN No Bird Screen. | <input type="checkbox"/> PAC Perimeter Anchor Clips. |
| <input type="checkbox"/> ISA Aluminum Insect Screen. | <input type="checkbox"/> ACT Electric or Pneumatic Actuator. |
| <input type="checkbox"/> ISSS Type 304 S.S. Insect Screen. | Specify: _____. |
| <input type="checkbox"/> WE Welded Construction. | <input type="checkbox"/> Other: _____. |
| <input type="checkbox"/> ESI Extended Sill. | |

OPTIONAL FINISHES:

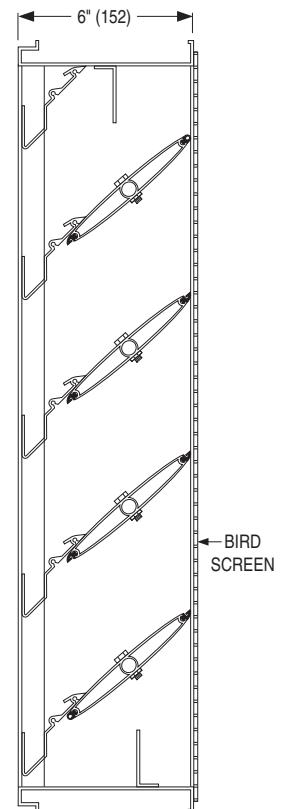
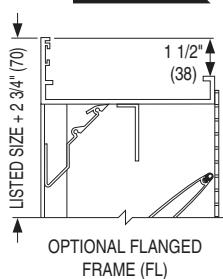
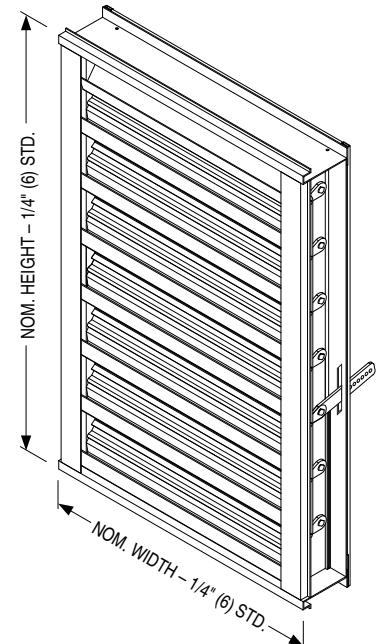
- | |
|--|
| <input type="checkbox"/> PC3 Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC Prime Coat. |
| <input type="checkbox"/> AN04 Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 Clear Anodized 215-R1. |

Color Anodized:

- | | |
|--|---|
| <input type="checkbox"/> ANLB Light Bronze. | <input type="checkbox"/> ANMB Medium Bronze. |
| <input type="checkbox"/> ANDB Dark Bronze. | <input type="checkbox"/> ANBK Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|--|---|
| <input type="checkbox"/> U00 Exact Size. | <input type="checkbox"/> U38 Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 Undersize 1/2" (12.7). | |



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	5 - 29 - 09	1606CDAF



Nailor[®]
Industries Inc.

EXTRUDED ALUMINUM COMBINATION LOUVER/DAMPER
6" (152) DEEP • DRAINABLE BLADE
OPERABLE AIRFOIL BLADE
PERFORMANCE DATA
MODEL: 1606CDAF

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
16 0.41	0.20 0.02	0.36 0.03	0.52 0.05	0.68 0.06	0.83 0.08	0.99 0.09	1.15 0.11	1.30 0.12	1.31 0.12
20 0.51	0.42 0.04	0.74 0.07	1.07 0.10	1.39 0.13	1.71 0.16	2.04 0.19	2.36 0.22	2.69 0.25	3.01 0.28
24 0.61	0.54 0.05	0.96 0.09	1.38 0.13	1.80 0.17	2.22 0.21	2.64 0.25	3.06 0.28	3.48 0.32	3.90 0.36
30 0.76	0.70 0.07	1.25 0.12	1.79 0.17	2.34 0.22	2.88 0.27	3.43 0.32	3.97 0.37	4.51 0.42	5.06 0.47
36 0.91	0.93 0.09	1.66 0.15	2.38 0.22	3.10 0.29	3.83 0.36	4.55 0.42	5.27 0.49	6.00 0.56	6.72 0.62
42 1.07	1.10 0.10	1.94 0.18	2.79 0.26	3.64 0.34	4.49 0.42	5.34 0.50	6.18 0.57	7.03 0.65	7.88 0.73
48 1.22	1.22 0.11	2.16 0.20	3.11 0.29	4.05 0.38	4.99 0.46	5.94 0.55	6.89 0.64	7.82 0.73	8.77 0.81
54 1.37	1.45 0.13	2.57 0.24	3.69 0.34	4.82 0.45	5.94 0.55	7.06 0.66	8.18 0.76	9.31 0.86	10.43 0.97
60 1.52	1.56 0.14	2.76 0.26	3.97 0.37	5.17 0.48	6.38 0.59	7.59 0.70	8.79 0.82	10.00 0.93	11.20 1.04
66 1.68	1.79 0.17	3.17 0.29	4.56 0.42	5.94 0.55	7.33 0.68	8.71 0.81	10.09 0.94	11.48 1.07	12.86 1.19
72 1.83	1.95 0.18	3.46 0.32	4.97 0.46	6.48 0.60	7.99 0.74	9.50 0.88	11.01 1.02	12.52 1.16	14.02 1.30
78 1.98	2.18 0.20	3.87 0.36	5.56 0.52	7.24 0.67	8.93 0.83	10.62 0.99	12.31 1.14	14.00 1.30	15.69 1.46
84 2.13	2.34 0.22	4.16 0.39	5.97 0.55	7.78 0.72	9.59 0.89	11.41 1.06	13.22 1.23	15.03 1.40	16.85 1.57
90 2.29	2.57 0.24	4.56 0.42	6.56 0.61	8.55 0.79	10.54 0.98	12.53 1.16	14.52 1.35	16.52 1.53	18.51 1.72
96 2.44	2.73 0.25	4.85 0.45	6.97 0.65	9.08 0.84	11.20 1.04	13.32 1.24	15.44 1.43	17.55 1.63	19.67 1.83

AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

Free Area %	43%
Free Area sq. ft. (sq. m.)	6.89 (0.64)
INTAKE	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
K	1142 fpm (348 m/min.)
E	Air Volume at 1142 fpm
	7868 cfm (3713 l/s)
	Free Area Velocity
	.19 in. w.g. (47 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1606CDAF shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

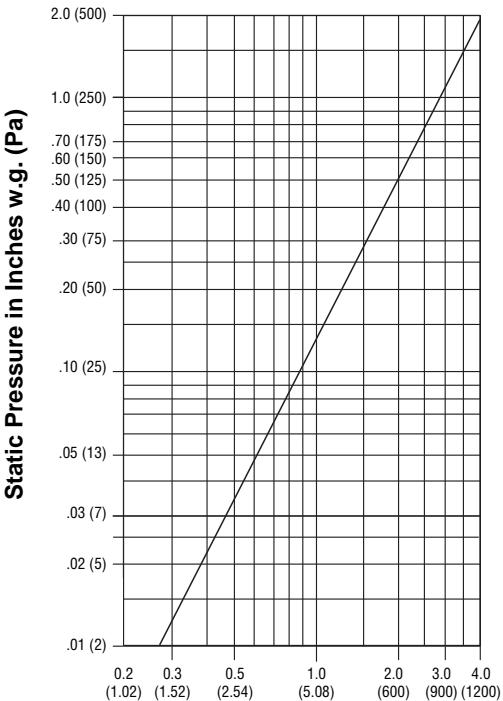
SCHEDULE TYPE:

PROJECT:

ENGINEER:

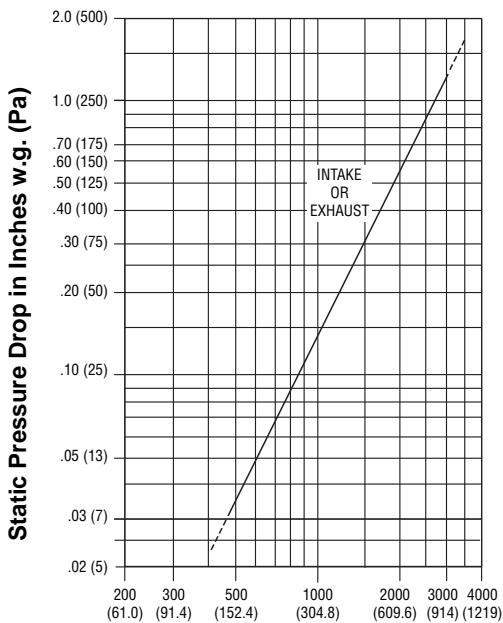
CONTRACTOR:

AIR LEAKAGE (Damper fully closed)



Leakage in CFM/ft.² (L/s/m²)
Louver test size: 48" x 48" (1219 x 1219 mm).

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area
Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5 – 6.5.

Page 2 of 2
Dimensions are in inches (mm).



ACOUSTICAL LOUVER • SIGHTPROOF 12" (305) DEEP • FORMED ALUMINUM MODEL: 1612QS (1612AD)

Model 1612QS acoustical louver combines the most effective sound attenuation performance with protection from the elements in an architecturally pleasing design. Fiberglass blade insulation provides good sound absorption and the closely centered multiple formed J blade design is sightproof and provides excellent weather protection. The model is suitable for either intake or exhaust applications and the 30% free area provides good air performance throughout the airflow range.

STANDARD CONSTRUCTION:

- FRAME:** 12" (305) deep. Formed aluminum, .080" (2.03) nominal thickness.
BLADES: Formed aluminum, .080" (2.03) nominal thickness. Perforated interior retains and protects internal insulation.

ACOUSTICAL INSULATION: Fiberglass.

BLADE ANGLE: Fixed at 45 degrees.

BLADE SPACING: Approximately 6 1/2" (165) on centers.

MULLIONS: Visible type, as required, depending upon width.

SCREEN: 3/4" x .051" (19 x 1.3) expanded, flattened aluminum bird screen in removable frame (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" W x 18" H (305 x 457).

MAX. SINGLE SECTION SIZE: 60" W x 96" H (1524 x 3048). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> WE | Welded Construction. | | |

OPTIONAL FINISHES:

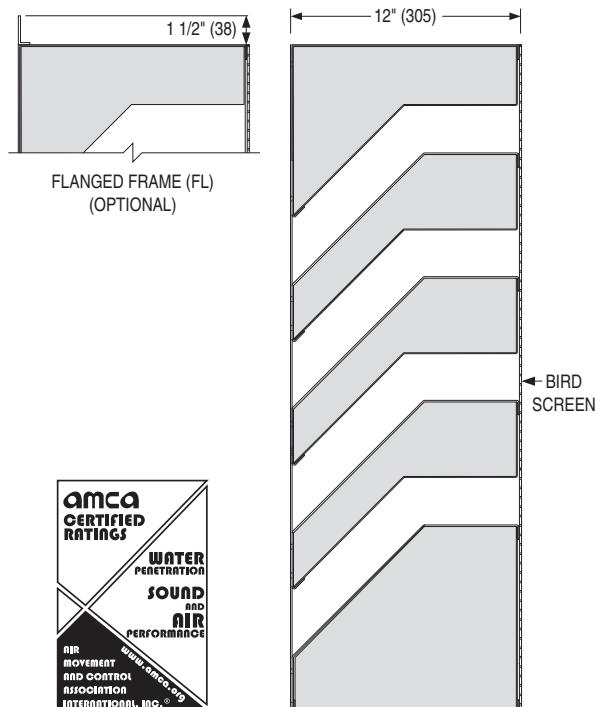
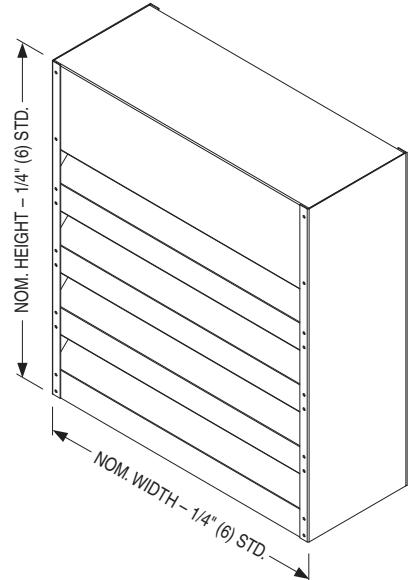
- | | |
|--------------------------------------|--|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

Color Anodized:

- | | | | |
|--------------------------------------|---------------|--------------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1612AD-1 1-10-08	1612QS



Nailor[®]
Industries Inc.

**ACOUSTICAL LOUVER • SIGHTPROOF
12" (305) DEEP • FORMED ALUMINUM
PERFORMANCE DATA
MODEL: 1612QS (1612AD)**

FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters								
		12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
Height in Inches and Meters	18 0.46	0.17	0.28	0.38	0.49	0.59	0.69	0.80	0.90	1.01
	24 0.61	0.35	0.56	0.76	0.97	1.18	1.39	1.60	1.81	2.01
	30 0.76	0.52	0.83	1.15	1.46	1.77	2.08	2.40	2.71	3.02
	36 0.91	0.69	1.11	1.53	1.94	2.36	2.78	3.19	3.61	4.03
	42 1.07	0.87	1.39	1.91	2.43	2.95	3.47	3.99	4.51	5.03
	48 1.22	1.04	1.67	2.29	2.92	3.54	4.17	4.79	5.42	6.04
	54 1.37	1.22	1.94	2.67	3.40	4.13	4.86	5.59	6.32	7.05
	60 1.52	1.39	2.22	3.06	3.89	4.72	5.56	6.39	7.22	8.06
	66 1.68	1.56	2.50	3.44	4.38	5.31	6.25	7.19	8.13	9.06
	72 1.83	1.74	2.78	3.82	4.86	5.90	6.94	7.99	9.03	10.07
	78 1.98	1.74	2.78	3.82	4.86	5.90	6.94	7.99	9.03	10.07
	84 2.13	1.91	3.06	4.20	5.35	6.49	7.64	8.78	9.93	11.08
	90 2.29	2.08	3.33	4.58	5.83	7.08	8.33	9.58	10.83	12.08
	96 2.44	2.26	3.61	4.97	6.32	7.67	9.03	10.38	11.74	13.09



Nailor Industries certifies the Model 1612QS shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Water Penetration, Air Performance and Sound ratings.

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	30%
Free Area sq. ft. (sq. m.)	4.79 (0.45)
I N T A K E Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	977 fpm (298 m/min.)
Air Volume at 978 fpm	4680 cfm (2208 l/s)
Free Area Velocity	
Pressure Drop @ 978 fpm	.12 in. w.g. (29.8 Pa)

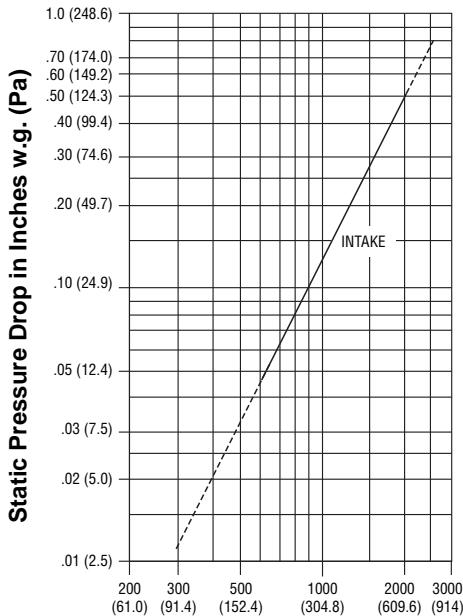
NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

FREE FIELD NOISE REDUCTION

Octave Band (Frequency)(Hz)	Free Field Noise Reduction (db)	Transmission Loss (db)	Sound Transmission Class
2 (125)	11	5	13
3 (250)	11	5	
4 (500)	16	10	
5 (1000)	25	19	
6 (2000)	20	14	
7 (4000)	19	13	

NOTE: The Sound Transmission Class (STC) is a single number rating of the louver's resistance to transfer airbourne sound, calculated in accordance with ASTM E413-04. The higher the STC rating number, the less sound is transmitted through the louver.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm).

Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
2 - 2 - 11	1600	1612AD-2 1-10-08	1612QS



SPECIALTY STATIONARY LOUVERS EXTRUDED ALUMINUM CIRCULAR & SEMICIRCULAR SHAPES MODEL SERIES: 1600

Nailor specialty shape louvers are available in a variety of blade/frame designs.

The following louver models are available in specialty shapes as shown:

1602J (SB)	1604J	1604D (SD)	1606J	1606D (SD)
1602K (SR)	1604JD (SB)	1604DD	1606JD (SB)	1606DD
1604KD (SR)				

Note: Use of drainable blades is not recommended on certain shapes.
Consult Nailor for specific applications.

PERFORMANCE:

Standard louvers are tested for water penetration and pressure drop in a square configuration only. Performance of specialty shape louvers may vary from that of standard louvers.

Specialty shape louvers are not licensed to bear the AMCA seal.

STANDARD CONSTRUCTION:

FRAME: Type 6063-T5 extruded or formed aluminum. Channel type standard. Frame profile may vary depending upon louver style and shape. Contact Nailor for specific details.

BLADES: Type 6063-T5 extruded aluminum. See applicable louver model submittal sheet for blade profile.

BLADE SUPPORT

BRACKETS: Concealed type, factory installed on rear of louver as necessary. Reinforced with 1" x 1" (25 x 25) vertical angle (adds approximately 1" [25] to overall louver depth).

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 20" Diameter (508). Contact Nailor for smaller sizes.

MAXIMUM SINGLE SECTION SIZE:

SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" H x 120" W (2134 x 3048). Larger louvers will require field assembly of smaller sections. Consult Nailor for section details of specific sizes.

OPTIONS:

- | | | | |
|--------------------------------------|----------------------------|--|------------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> Other: _____. | |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | | |

OPTIONAL FINISHES:

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

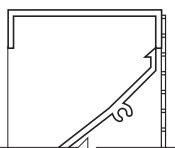
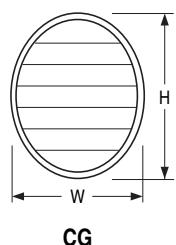
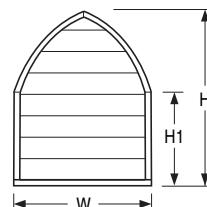
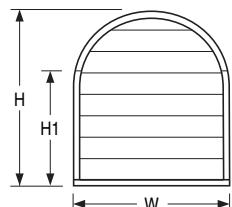
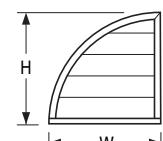
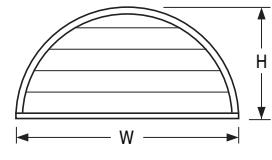
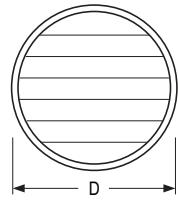
Color Anodized:

- | | | | |
|--------------------------------------|---------------|--------------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

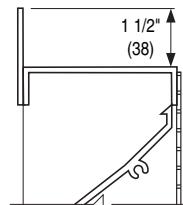
OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |

Contact Nailor for special configurations or requirements.



TYPICAL CHANNEL
FRAME (STANDARD)



OPTIONAL FLANGED
FRAME (FL)

SCHEDULE TYPE:

Dimensions are in inches (mm).

PROJECT:

ENGINEER:

CONTRACTOR:

DATE	B SERIES	SUPERSEDES	DRAWING NO.
11 - 15 - 10	1600	1600CSC-1 7-21-10	1600CSC



SPECIALTY STATIONARY LOUVERS EXTRUDED ALUMINUM TRIANGULAR & TRAPEZOIDAL SHAPES MODEL SERIES: 1600

Nailor specialty shape louvers are available in a variety of blade/frame designs. The following louver models are available in specialty shapes as shown:

1602J (SB) **1604J** **1604D (SD)** **1606J** **1606D (SD)**
1602K (SR) **1604JD (SB)** **1604DD** **1606JD (SB)** **1606DD**
1604KD (SR) **1606KD (SR)**

Note: Use of drainable blades is not recommended on certain shapes.
Consult Nailor for specific applications.

PERFORMANCE:

Standard louvers are tested for water penetration and pressure drop in a square configuration only. Performance of specialty shape louvers may vary from that of standard louvers.

Specialty shape louvers are not licensed to bear the AMCA seal.

STANDARD CONSTRUCTION:

FRAME: Type 6063-T5 extruded or formed aluminum. Channel type standard. Frame profile may vary depending upon louver style and shape. Contact Nailor for specific details.

BLADES: Type 6063-T5 extruded aluminum. See applicable louver model submittal sheet for blade profile.

BLADE SUPPORT

BRACKETS: Concealed type, factory installed on rear of louver as necessary. Reinforced with 1" x 1" (25 x 25) vertical angle (adds approximately 1" [25] to overall louver depth).

SCREEN: 3/4" x .051 (19 x 1.3) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 20" W x 16" H (508 x 406).

MAXIMUM SINGLE

SECTION SIZE: 120" W x 84" H (3048 x 2134) or 84" W x 120" H (2134 x 3048). Consult Nailor for section details of specific sizes. Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|----------------------------|--------------------------------------|------------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> Other: | _____. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | | |

OPTIONAL FINISHES:

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> PC3 | Powder Coat AAMA 2603. Color: _____. |
| <input type="checkbox"/> PC4 | High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____. |
| <input type="checkbox"/> PC5 | Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____. |
| <input type="checkbox"/> PCC | Prime Coat. |
| <input type="checkbox"/> AN04 | Clear Anodized 204-R1. |
| <input type="checkbox"/> AN15 | Clear Anodized 215-R1. |

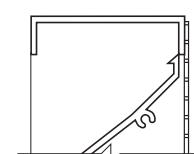
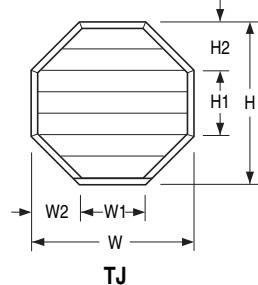
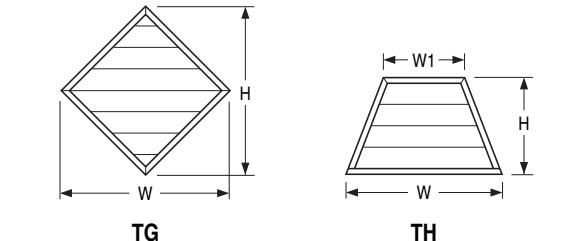
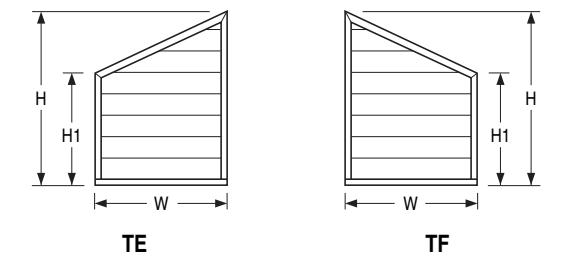
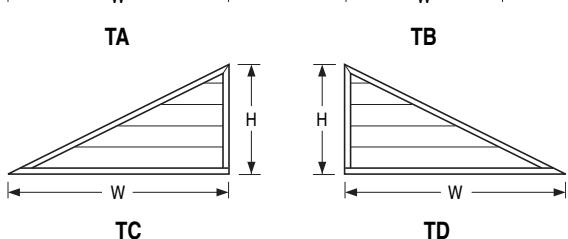
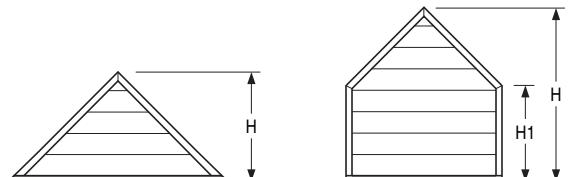
Color Anodized:

- | | | | |
|--------------------------------------|---------------|--------------------------------------|----------------|
| <input type="checkbox"/> ANLB | Light Bronze. | <input type="checkbox"/> ANMB | Medium Bronze. |
| <input type="checkbox"/> ANDB | Dark Bronze. | <input type="checkbox"/> ANBK | Black. |

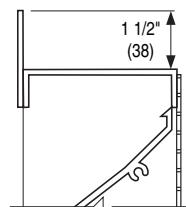
OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> U00 | Exact Size. |
| <input type="checkbox"/> U38 | Undersize 3/8" (9.5). |
| <input type="checkbox"/> U50 | Undersize 1/2" (12.7). |

Contact Nailor for special configurations or requirements.



TYPICAL CHANNEL
FRAME (STANDARD)



OPTIONAL FLANGED
FRAME (FL)

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
11 - 15 - 10	1600	1600TT-1 7-21-10	1600TT



FORMED STEEL STATIONARY LOUVER 4" (102) DEEP • J BLADE MODEL: 1704J

Model 1704J, incorporating J style blades, is an architecturally styled 4" (102) deep formed louver designed with smooth, clean lines that visually compliment any structure's exterior styling. Galvanized steel construction is economical, yet durable and is available with channel or flanged frame. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics and a high free area. Model 1704J is engineered to be architecturally appealing as well as mechanically enduring.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, 18 ga. (1.3) formed galvanized steel.

BLADES: 20 ga. (1.0) formed galvanized steel. J style.

BLADE ANGLE: Fixed at 45 degrees.

BLADE SPACING: Approx. 4" (102) on centers.

SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 60" wide x 96" high (1524 x 2438). Larger louvers will require field assembly of smaller sections.

OPTIONS:

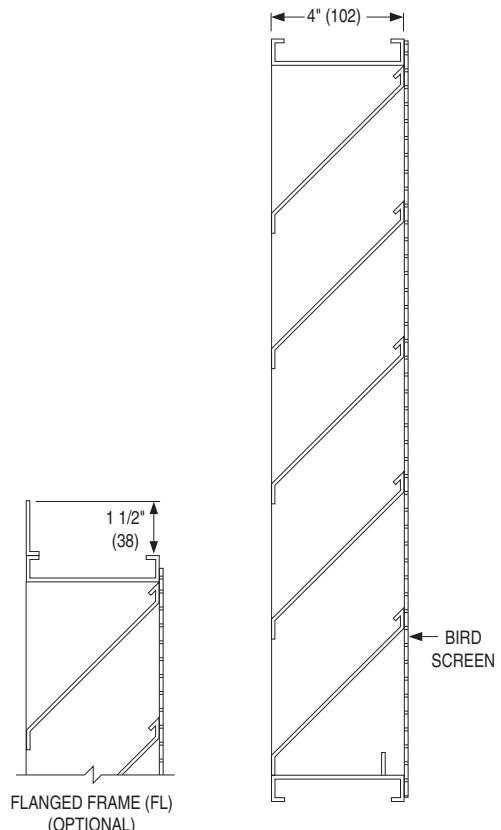
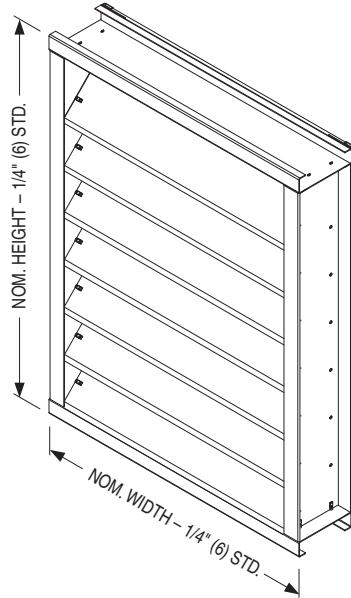
- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 304 | Type 304 S.S. Construction. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> 18GA | 18 Gauge Construction. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> 16GA | 16 Gauge Construction. | | |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
12 - 1 - 10	1700	8 - 25 - 09	1704J



Nailor[®]
Industries Inc.

FORMED STEEL STATIONARY LOUVER
4" (102) DEEP • J BLADE
PERFORMANCE DATA
MODEL: 1704J

FREE AREA in Square Feet and Square Meters

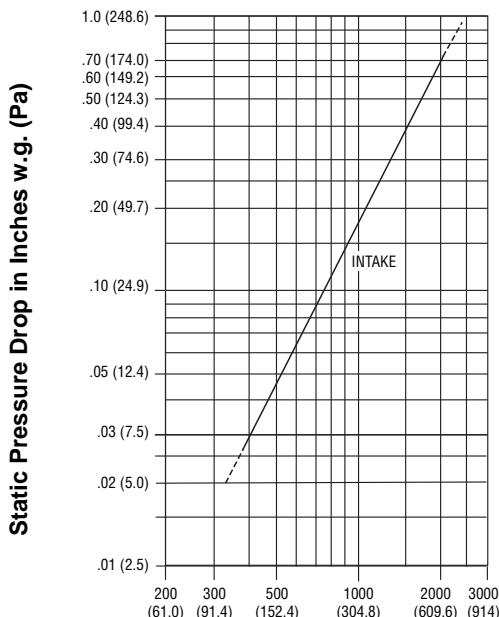
	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 0.30	0.30 0.02	0.41 0.04	0.57 0.05	0.71 0.07	0.86 0.08	1.02 0.09	1.16 0.11	1.32 0.12	1.47 0.14
18 0.46	0.56 0.05	0.87 0.08	1.19 0.11	1.50 0.14	1.82 0.17	2.14 0.20	2.46 0.23	2.78 0.26	3.10 0.29
24 0.61	0.82 0.08	1.29 0.12	1.76 0.16	2.22 0.21	2.70 0.25	3.17 0.29	3.63 0.34	4.11 0.38	4.57 0.42
30 0.76	1.11 0.10	1.75 0.16	2.39 0.22	3.01 0.28	3.65 0.34	4.29 0.40	4.93 0.46	5.56 0.52	6.19 0.58
36 0.91	1.40 0.13	2.20 0.20	3.00 0.28	3.81 0.35	4.61 0.43	5.41 0.50	6.22 0.58	7.02 0.65	7.82 0.73
42 1.07	1.67 0.16	2.62 0.24	3.58 0.33	4.53 0.42	5.48 0.51	6.44 0.60	7.39 0.69	8.35 0.78	9.30 0.86
48 1.22	1.97 0.18	3.08 0.29	4.20 0.39	5.32 0.49	6.44 0.60	7.56 0.70	8.53 0.79	9.81 0.91	10.93 1.02
54 1.37	2.22 0.21	3.50 0.33	4.77 0.44	6.04 0.56	7.32 0.68	8.59 0.80	9.86 0.92	11.13 1.03	12.40 1.15
60 1.52	2.52 0.23	3.96 0.37	5.39 0.50	6.83 0.63	8.27 0.77	9.71 0.90	11.15 1.04	12.59 1.17	14.03 1.30
66 1.68	2.79 0.26	4.37 0.41	5.97 0.55	7.55 0.70	9.15 0.85	10.73 1.00	12.33 1.15	13.92 1.29	15.51 1.44
72 1.83	3.08 0.29	4.83 0.45	6.59 0.61	8.35 0.78	10.10 0.94	11.86 1.10	13.62 1.27	15.37 1.43	17.13 1.59
78 1.98	3.36 0.31	5.29 0.49	7.21 0.67	9.14 0.85	11.06 1.03	12.99 1.21	14.91 1.39	16.83 1.56	18.76 1.74
84 2.13	3.63 0.34	5.71 0.53	7.78 0.72	9.86 0.92	11.94 1.11	14.01 1.30	16.08 1.49	18.16 1.69	20.24 1.88
90 2.29	3.92 0.36	6.16 0.57	8.41 0.78	10.65 0.99	12.89 1.20	15.14 1.41	17.38 1.61	19.62 1.82	21.87 2.03
96 2.44	4.19 0.39	6.59 0.61	8.97 0.83	11.37 1.06	13.77 1.28	16.16 1.50	18.55 1.72	20.95 1.95	23.34 2.17

AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

Free Area %	53%
Free Area sq. ft. (sq. m.)	8.53 (0.79)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	869 fpm (265 m/min.)
	Air Volume at 869 fpm
	7413 cfm (3498 l/s)
	Free Area Velocity
	.13 in. w.g. (32 Pa)
	Pressure Drop @ 869 fpm

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area
Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5-6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:			
CONTRACTOR:			
	DATE	B SERIES	SUPERSEDES
	12 - 1 - 10	1700	8 - 25 - 09
			1704J



FORMED STEEL STATIONARY LOUVER 4" (102) DEEP • J BLADE • DRAINABLE HEAD MODEL: 1704JD (1704SB)

Model 1704JD, incorporating J style blades, is an architecturally styled 4" (102) deep formed louver designed with smooth, clean lines that visually compliment any structure's exterior styling. Galvanized steel construction is economical, yet durable and is available with channel or flanged frame. The drainable head feature utilizes a top gutter that collects the water running down the building face and channels it out the concealed downspouts in the side frame, thus preventing it from flowing down into the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics and a high free area. Model 1704JD is AMCA Licensed and is engineered to be architecturally appealing as well as mechanically enduring.

STANDARD CONSTRUCTION:

- FRAME:** 4" (102) deep, 18 ga. (1.3) formed galvanized steel.
BLADES: 20 ga. (1.0) formed galvanized steel. J style.
BLADE ANGLE: Fixed at 45 degrees.
BLADE SPACING: Approx. 4" (102) on centers.
SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).
FINISH: Mill.

MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 60" wide x 96" high (1524 x 2438). Larger louvers will require field assembly of smaller sections.

OPTIONS:

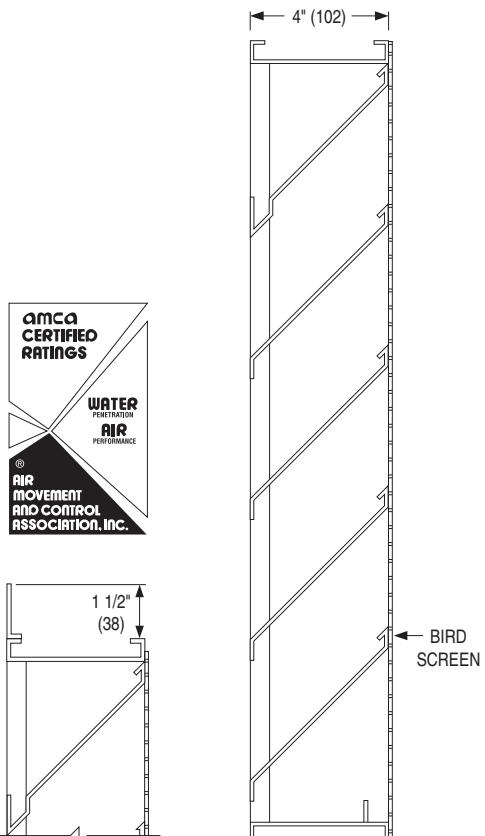
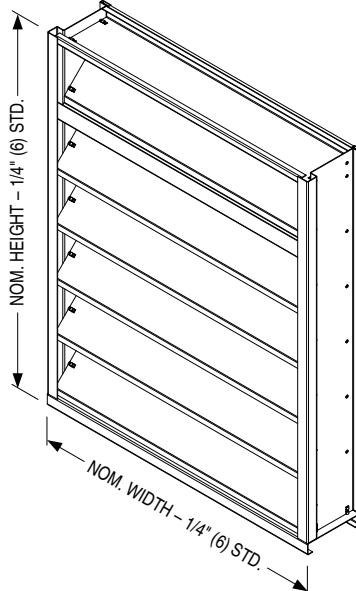
- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 304 | Type 304 S.S. Construction. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> 18GA | 18 Gauge Construction. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> 16GA | 16 Gauge Construction. | | |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
 PC4 High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____.
 PC5 Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____.
 PCC Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
 U38 Undersize 3/8" (9.5).
 U50 Undersize 1/2" (12.7).



FLANGED FRAME (FL)
(OPTIONAL)

Page 1 of 2
Dimensions are in inches (mm).

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:	DATE	B SERIES	SUPERSEDES
CONTRACTOR:	2 - 2 - 11	1700	1704SB-1 6 - 3 - 09
			DRAWING NO.
			1704JD



Nailor[®]
Industries Inc.

FORMED STEEL STATIONARY LOUVER
4" (102) DEEP • J BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1704JD (1704SB)

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 0.30	0.26 0.02	0.40 0.04	0.55 0.05	0.69 0.06	0.84 0.08	0.99 0.09	1.13 0.11	1.28 0.12	1.43 0.13
18 0.46	0.54 0.05	0.85 0.08	1.16 0.11	1.46 0.14	1.77 0.16	2.08 0.19	2.39 0.22	2.70 0.25	3.01 0.28
24 0.61	0.80 0.07	1.25 0.12	1.71 0.16	2.16 0.20	2.62 0.24	3.08 0.29	3.53 0.33	3.99 0.37	4.44 0.41
30 0.76	1.08 0.10	1.70 0.16	2.32 0.22	2.93 0.27	3.55 0.33	4.17 0.39	4.79 0.44	5.40 0.50	6.02 0.56
36 0.91	1.36 0.13	2.14 0.20	2.92 0.27	3.70 0.34	4.48 0.42	5.26 0.49	6.04 0.56	6.82 0.63	7.60 0.71
42 1.07	1.62 0.15	2.55 0.24	3.48 0.32	4.40 0.41	5.33 0.50	6.26 0.58	7.18 0.67	8.11 0.75	9.04 0.84
48 1.22	1.91 0.18	2.99 0.28	4.08 0.38	5.17 0.48	6.26 0.58	7.35 0.68	8.29 0.77	9.53 0.89	10.62 0.99
54 1.37	2.16 0.20	3.40 0.32	4.64 0.43	5.87 0.55	7.11 0.66	8.35 0.78	9.58 0.89	10.82 1.01	12.05 1.12
60 1.52	2.45 0.23	3.85 0.36	5.24 0.49	6.64 0.62	8.04 0.75	9.44 0.88	10.84 1.01	12.24 1.14	13.63 1.27
66 1.68	2.71 0.25	4.25 0.39	5.80 0.54	7.34 0.68	8.89 0.83	10.43 0.97	11.98 1.11	13.53 1.26	15.07 1.40
72 1.83	2.99 0.28	4.70 0.44	6.40 0.59	8.11 0.75	9.82 0.91	11.53 1.07	13.24 1.23	14.94 1.39	16.65 1.55
78 1.98	3.27 0.30	5.14 0.48	7.01 0.65	8.88 0.83	10.75 1.00	12.62 1.17	14.49 1.35	16.36 1.52	18.23 1.69
84 2.13	3.53 0.33	5.55 0.52	7.56 0.70	9.58 0.89	11.60 1.08	13.62 1.26	15.63 1.45	17.65 1.64	19.67 1.83
90 2.29	3.81 0.35	5.99 0.56	8.17 0.76	10.35 0.96	12.53 1.16	14.71 1.37	16.89 1.57	19.07 1.77	21.25 1.97
96 2.44	4.07 0.38	6.40 0.59	8.72 0.81	11.05 1.03	13.38 1.24	15.70 1.46	18.03 1.68	20.36 1.89	22.68 2.11

AIRFLOW / WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

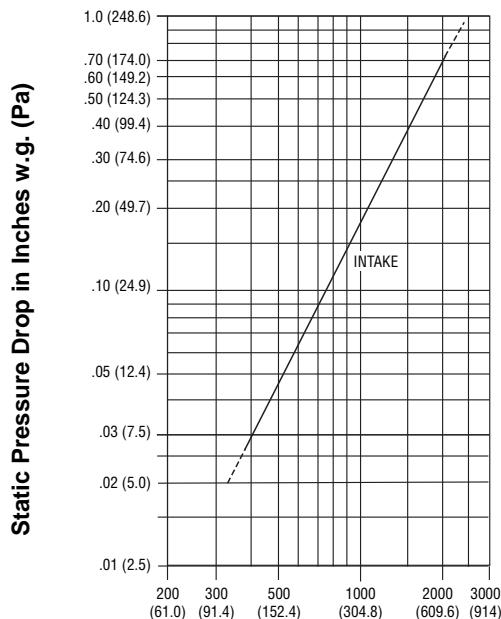
Free Area %	52%
Free Area sq. ft. (sq. m.)	8.29 (0.77)
I N T A K E Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	937 fpm (286 m/min.)
Air Volume at 937 fpm	7768 cfm (3666 l/s)
Free Area Velocity	
Pressure Drop @ 937 fpm	.16 in. w.g. (40 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1704JD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area
Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5-6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:			
CONTRACTOR:	2 - 2 - 11	1700	1704SB-2 6 - 3 - 09
			1704JD



FORMED STEEL STATIONARY LOUVER 6" (152) DEEP • J BLADE MODEL: 1706J

Model 1706J, incorporating J style blades, is an architecturally styled 6" (152) deep formed louver designed with smooth, clean lines that visually compliment any structure's exterior styling. Galvanized steel construction is economical, yet durable and is available with channel or flanged frame. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics and a high free area. Model 1706J is engineered to be architecturally appealing as well as mechanically enduring.

STANDARD CONSTRUCTION:

FRAME: 6" (152) deep, 18 ga. (1.3) formed galvanized steel.

BLADES: 20 ga. (1.0) formed galvanized steel. J style.

BLADE ANGLE: Fixed at 45 degrees.

BLADE SPACING: Approx. 5 1/2" (140) on centers.

SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 60" wide x 96" high (1524 x 2438). Larger louvers will require field assembly of smaller sections.

OPTIONS:

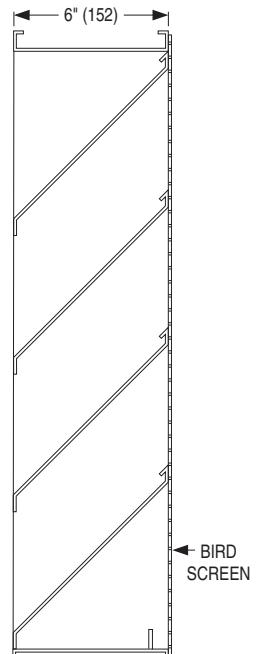
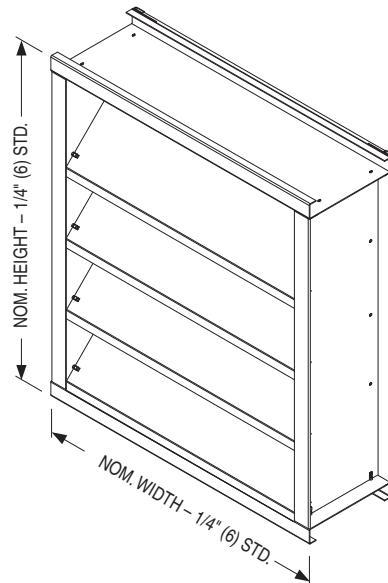
- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 304 | Type 304 S.S. Construction. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> 18GA | 18 Gauge Construction. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> 16GA | 16 Gauge Construction. | | |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



SCHEDULE TYPE:	Page 1 of 2 Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	DATE B SERIES SUPERSEDES DRAWING NO.			
CONTRACTOR:	12 - 1 - 10 1700 8 - 25 - 09 1706J			



Nailor[®]
Industries Inc.

FORMED STEEL STATIONARY LOUVER
6" (152) DEEP • J BLADE
PERFORMANCE DATA
MODEL: 1706J

FREE AREA in Square Feet and Square Meters

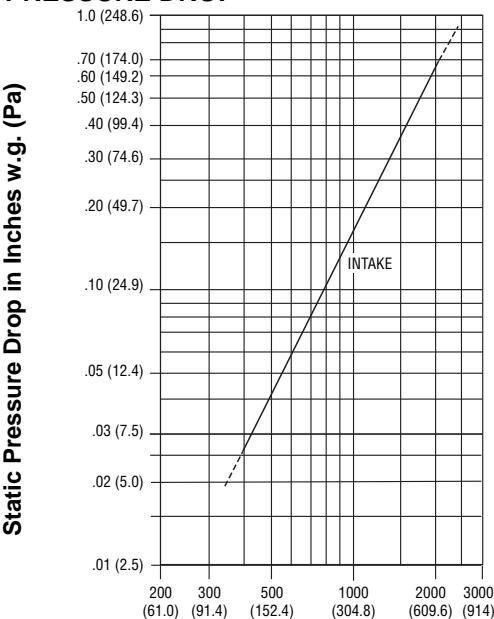
Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 0.30	0.19 0.02	0.29 0.03	0.39 0.04	0.49 0.05	0.61 0.06	0.71 0.07	0.81 0.08	0.92 0.09	1.02 0.09
18 0.46	0.47 0.04	0.75 0.07	1.02 0.09	1.29 0.12	1.56 0.14	1.83 0.17	2.11 0.20	2.38 0.22	2.64 0.25
24 0.61	0.77 0.07	1.20 0.11	1.65 0.15	2.08 0.19	2.52 0.23	2.96 0.27	3.40 0.32	3.84 0.36	4.27 0.40
30 0.76	1.06 0.10	1.67 0.16	2.27 0.21	2.87 0.27	3.48 0.32	4.09 0.38	4.69 0.44	5.30 0.49	5.90 0.55
36 0.91	1.35 0.13	2.12 0.20	2.89 0.27	3.66 0.34	4.43 0.41	5.21 0.48	5.98 0.56	6.75 0.63	7.52 0.70
42 1.07	1.65 0.15	2.58 0.24	3.52 0.33	4.56 0.42	5.40 0.50	6.34 0.59	7.28 0.68	8.21 0.76	9.15 0.85
48 1.22	1.93 0.18	3.04 0.28	4.15 0.39	5.25 0.49	6.36 0.59	7.46 0.69	8.53 0.79	9.67 0.90	10.77 1.00
54 1.37	2.22 0.21	3.50 0.33	4.77 0.44	6.04 0.56	7.32 0.68	8.59 0.80	9.86 0.92	11.13 1.04	12.40 1.15
60 1.52	2.52 0.23	3.96 0.37	5.39 0.50	6.83 0.63	8.27 0.77	9.71 0.90	11.15 1.04	12.59 1.17	14.03 1.30
66 1.68	2.81 0.26	4.41 0.41	6.02 0.56	7.62 0.71	9.23 0.86	10.84 1.01	12.44 1.16	14.05 1.31	15.65 1.45
72 1.83	3.10 0.29	4.88 0.45	6.65 0.62	8.42 0.78	10.19 0.95	11.97 1.11	13.74 1.28	15.51 1.44	17.28 1.61
78 1.98	3.40 0.32	5.33 0.50	7.28 0.68	9.21 0.86	11.15 1.04	13.09 1.22	15.03 1.40	16.97 1.58	18.90 1.76
84 2.13	3.68 0.34	5.79 0.54	7.89 0.73	10.00 0.93	12.11 1.13	14.21 1.32	16.32 1.52	18.43 1.71	20.53 1.91
90 2.29	3.98 0.37	6.25 0.58	8.52 0.79	10.79 1.00	13.07 1.21	15.34 1.43	17.62 1.64	19.89 1.85	21.15 2.06
96 2.44	4.27 0.40	6.71 0.62	9.15 0.85	11.59 1.08	14.03 1.30	16.46 1.53	18.90 1.76	21.34 1.98	23.78 2.21

AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

Free Area %	53%
Free Area sq. ft. (sq. m.)	8.53 (0.79)
I N T A K E Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	938 fpm (286 m/min.)
Air Volume at 938 Free Area Velocity	8001 cfm (3776 l/s)
Pressure Drop @ 938 fpm	.15 in. w.g. (37 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5-6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:			
CONTRACTOR:	DATE	B SERIES	SUPERSEDES
	12 - 1 - 10	1700	8 - 25 - 09
			1706J



FORMED STEEL STATIONARY LOUVER 6" (152) DEEP • J BLADE • DRAINABLE HEAD MODEL: 1706JD (1706SB)

Model 1706JD, incorporating J style blades, is an architecturally styled 6" (152) deep formed louver designed with smooth, clean lines that visually compliment any structure's exterior styling. Galvanized steel construction is economical, yet durable and is available with channel or flanged frame. The drainable head feature utilizes a top gutter that collects the water running down the building face and channels it out the concealed downspouts in the side frame, thus preventing it from flowing down into the airstream. Suitable for use in exhaust and low to medium velocity intake applications, the blade design features a rear water baffle and provides good protection against general weather conditions, with low pressure drop characteristics and a high free area. Model 1706JD is AMCA Licensed and is engineered to be architecturally appealing as well as mechanically enduring.

STANDARD CONSTRUCTION:

FRAME: 6" (152) deep, 18 ga. (1.3) formed galvanized steel.

BLADES: 20 ga. (1.0) formed galvanized steel. J style.

BLADE ANGLE: Fixed at 45 degrees.

BLADE SPACING: Approx. 5 1/2" (140) on centers.

SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 60" wide x 96" high (1524 x 2438). Larger louvers will require field assembly of smaller sections.

OPTIONS:

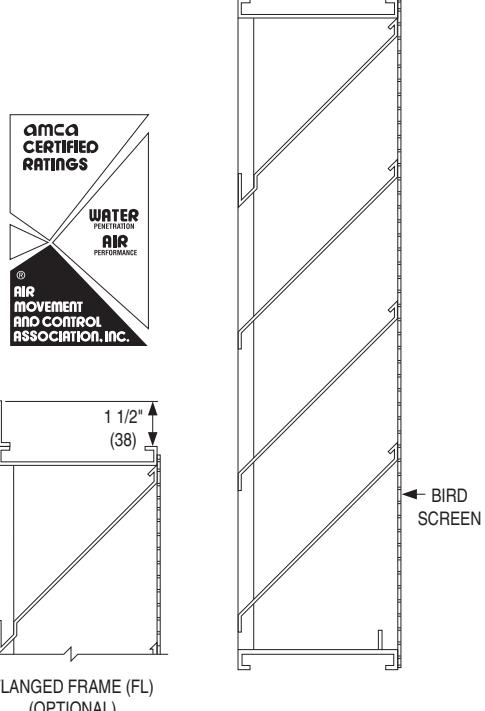
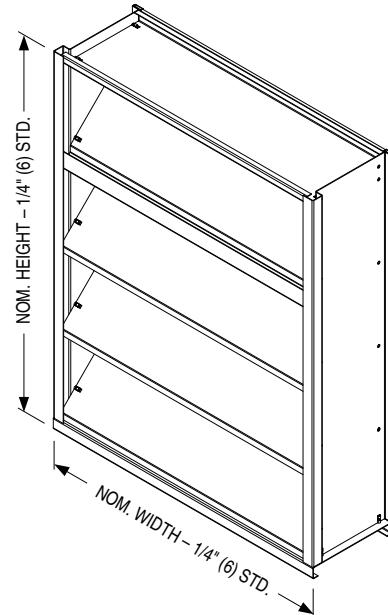
- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 304 | Type 304 S.S. Construction. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> 18GA | 18 Gauge Construction. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> 16GA | 16 Gauge Construction. | | |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____ .
- PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____ .
- PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____ .
- PCC** Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



FLANGED FRAME (FL)
(OPTIONAL)

SCHEDULE TYPE:	Page 1 of 2		
PROJECT:	Dimensions are in inches (mm).		
ENGINEER:	DATE	B SERIES	SUPERSEDES
CONTRACTOR:	2 - 2 - 11	1700	1706SB-1 6 - 3 - 09



Nailor[®]
Industries Inc.

FORMED STEEL STATIONARY LOUVER
6" (152) DEEP • J BLADE • DRAINABLE HEAD
PERFORMANCE DATA
MODEL: 1706JD (1706SB)

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 0.30	0.18 0.02	0.28 0.03	0.38 0.04	0.48 0.05	0.59 0.05	0.69 0.06	0.79 0.07	0.89 0.08	0.99 0.09
18 0.46	0.46 0.04	0.73 0.07	0.99 0.09	1.25 0.12	1.52 0.14	1.78 0.17	2.05 0.19	2.31 0.21	2.57 0.24
24 0.61	0.75 0.07	1.17 0.11	1.60 0.15	2.02 0.19	2.45 0.23	2.88 0.27	3.30 0.31	3.73 0.35	4.15 0.39
30 0.76	1.03 0.10	1.62 0.15	2.21 0.20	2.79 0.26	3.38 0.31	3.97 0.37	4.56 0.42	5.15 0.48	5.73 0.53
36 0.91	1.31 0.12	2.06 0.19	2.81 0.26	3.56 0.33	4.31 0.40	5.06 0.47	5.81 0.54	6.56 0.61	7.31 0.68
42 1.07	1.60 0.15	2.51 0.23	3.42 0.32	4.33 0.40	5.25 0.49	6.16 0.57	7.07 0.66	7.98 0.74	8.89 0.83
48 1.22	1.88 0.17	2.95 0.27	4.03 0.37	5.10 0.47	6.18 0.57	7.25 0.67	8.29 0.77	9.40 0.87	10.47 0.97
54 1.37	2.16 0.20	3.40 0.32	4.64 0.43	5.87 0.55	7.11 0.66	8.35 0.78	9.58 0.89	10.82 1.01	12.05 1.12
60 1.52	2.45 0.23	3.85 0.36	5.24 0.49	6.64 0.62	8.04 0.75	9.44 0.88	10.84 1.01	12.24 1.14	13.63 1.27
66 1.68	2.73 0.25	4.29 0.40	5.85 0.54	7.41 0.69	8.97 0.83	10.53 0.98	12.09 1.12	13.65 1.27	15.21 1.41
72 1.83	3.01 0.28	4.74 0.44	6.46 0.60	8.18 0.76	9.90 0.92	11.63 1.08	13.35 1.24	15.07 1.40	16.79 1.56
78 1.98	3.30 0.31	5.18 0.48	7.07 0.66	8.95 0.83	10.84 1.01	12.72 1.18	14.61 1.36	16.49 1.53	18.37 1.71
84 2.13	3.58 0.33	5.63 0.52	7.67 0.71	9.72 0.90	11.77 1.09	13.81 1.28	15.86 1.47	17.91 1.66	19.95 1.85
90 2.29	3.87 0.36	6.07 0.56	8.28 0.77	10.49 0.97	12.70 1.18	14.91 1.39	17.12 1.59	19.33 1.80	21.53 2.00
96 2.44	4.15 0.39	6.52 0.61	8.89 0.83	11.26 1.05	13.63 1.27	16.00 1.49	18.37 1.71	20.74 1.93	23.11 2.15

AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

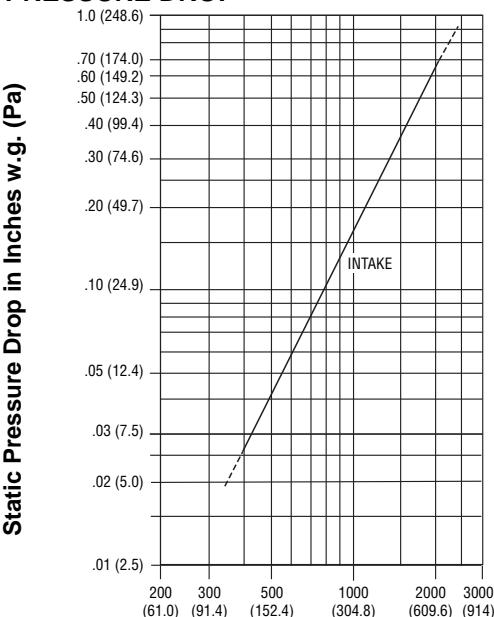
Free Area %	52%
Free Area sq. ft. (sq. m.)	8.29 (0.77)
I N T A K E Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1029 fpm (314 m/min.)
Air Volume at 1029 Free Area Velocity	8530 cfm (4025 l/s)
Pressure Drop @ 1029 fpm	.19 in. w.g. (47 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1706JD shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5-6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	2 - 2 - 11	1700	1706SB-2 6 - 3 - 09	1706JD



FORMED STEEL STATIONARY LOUVER 4" (102) DEEP • DRAINABLE BLADE MODEL: 1704D (1704SD)

Model 1704D, drainable blade type formed louver, provides excellent weather protection in a 4" (102) deep frame, with good air performance and pleasing aesthetics that compliment any structure's exterior styling. Suitable for use in exhaust and low to medium velocity intake applications, the drainable blade design utilizes rain gutters that divert collected water down concealed side downspouts and out the sill. Galvanized steel construction is economical, yet durable and the design provides good air performance through it's 53% free area as well as excellent protection against the elements. Model 1704D is available with channel or flanged type frame to suit most architectural and mechanical installation requirements.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, 20 ga. (1.0) formed galvanized steel.

BLADES: 20 ga. (1.0) formed galvanized steel. Drainable style.

BLADE ANGLE: Fixed at 45 degrees.

BLADE SPACING: Approx. 4" (102) on centers.

SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 60" wide x 96" high (1524 x 2438). Larger louvers will require field assembly of smaller sections.

OPTIONS:

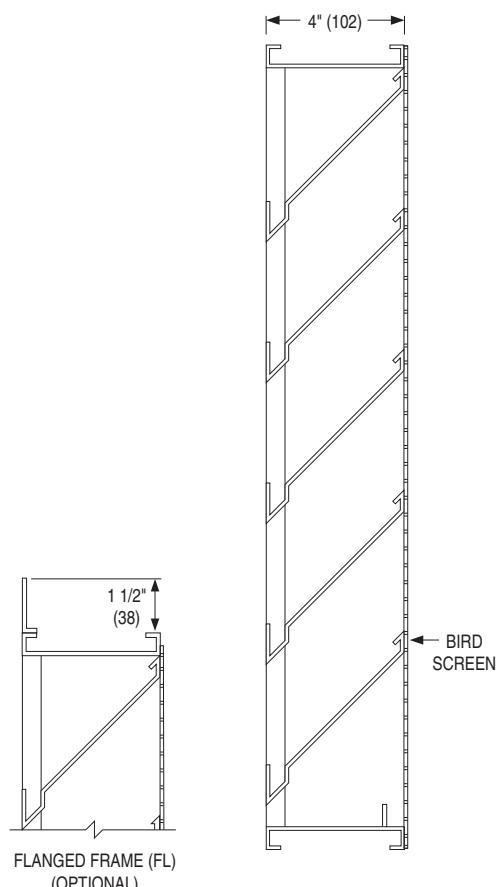
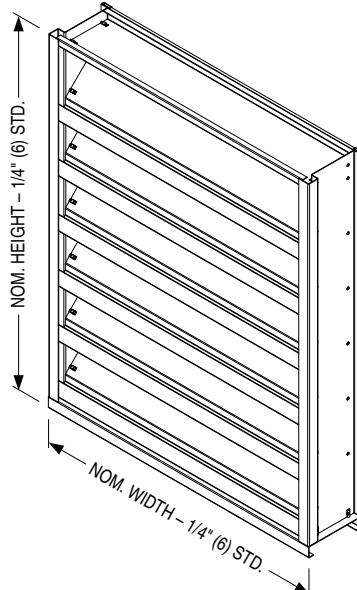
- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 304 | Type 304 S.S. Construction. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> 18GA | 18 Gauge Construction. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> 16GA | 16 Gauge Construction. | | |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
12 - 1 - 10	1700	1704SD-1 7-27-09	1704D



**FORMED STEEL STATIONARY LOUVER
4" (102) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1704D (1704SD)**

FREE AREA in Square Feet and Square Meters

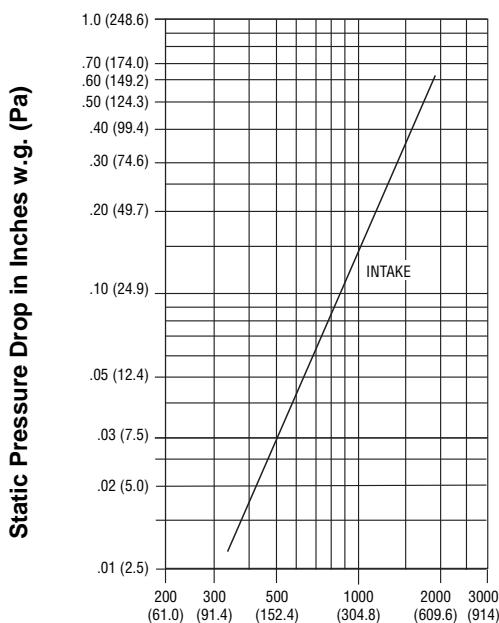
	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12	0.26	0.40	0.55	0.69	0.84	0.99	1.13	1.28	1.43
18	0.54	0.85	1.16	1.46	1.77	2.08	2.39	2.70	3.01
24	0.80	1.25	1.71	2.16	2.62	3.08	3.53	3.99	4.44
30	1.08	1.70	2.32	2.93	3.55	4.17	4.79	5.40	6.02
36	1.36	2.14	2.92	3.70	4.48	5.26	6.04	6.82	7.60
42	1.62	2.55	3.48	4.40	5.33	6.26	7.18	8.11	9.04
48	1.91	2.99	4.08	5.17	6.26	7.35	8.44	9.53	10.62
54	2.16	3.40	4.64	5.87	7.11	8.35	9.58	10.82	12.05
60	2.45	3.85	5.24	6.64	8.04	9.44	10.84	12.24	13.63
66	2.71	4.25	5.80	7.34	8.89	10.43	11.98	13.53	15.07
72	2.99	4.70	6.40	8.11	9.82	11.53	13.24	14.94	16.65
78	3.27	5.14	7.01	8.88	10.75	12.62	14.49	16.36	18.23
84	3.53	5.55	7.56	9.58	11.60	13.62	15.63	17.65	19.67
90	3.81	5.99	8.17	10.35	12.53	14.71	16.89	19.07	21.25
96	4.07	6.40	8.72	11.05	13.38	15.70	18.03	20.36	22.68

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	53%
Free Area sq. ft. (sq. m.)	8.44 (0.78)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	976 fpm (297 m/min.)
	Air Volume at 976 fpm
	8237 cfm (3887 l/s)
	Free Area Velocity
	.14 in. w.g. (35 Pa)
	Pressure Drop @ 976 fpm

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area
Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5-6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:		DATE	B SERIES
CONTRACTOR:		12 - 1 - 10	1704D



**FORMED STEEL STATIONARY LOUVER
4" (102) DEEP • DRAINABLE BLADE
HIGH PERFORMANCE
MODEL: 1704DHP (1704SDHP)**

Model 1704DHP, high performance drainable blade type formed steel louver, provides excellent weather protection in a 4" (102) deep frame, with superior air performance and pleasing aesthetics that compliment any structure's exterior styling. Suitable for use in exhaust and low to medium velocity intake applications, the drainable blade design utilizes rain gutters that divert collected water down concealed side downspouts and out the sill. Galvanized steel construction is economical, yet durable and the design provides excellent air performance at higher velocities through its 53% free area as well as maximum protection against the elements. Model 1704DHP is available with channel or flanged type frame to suit most architectural and mechanical installation requirements.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, 20 ga. (1.0) formed galvanized steel.

BLADES: 20 ga. (1.0) formed galvanized steel. Drainable style.

BLADE ANGLE: Fixed at 37.5 degrees.

BLADE SPACING: Approx. 3 1/2" (89) on centers.

SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).

FINISH: Mill.

MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 60" wide x 96" high (1524 x 2438). Larger louvers will require field assembly of smaller sections.

OPTIONS:

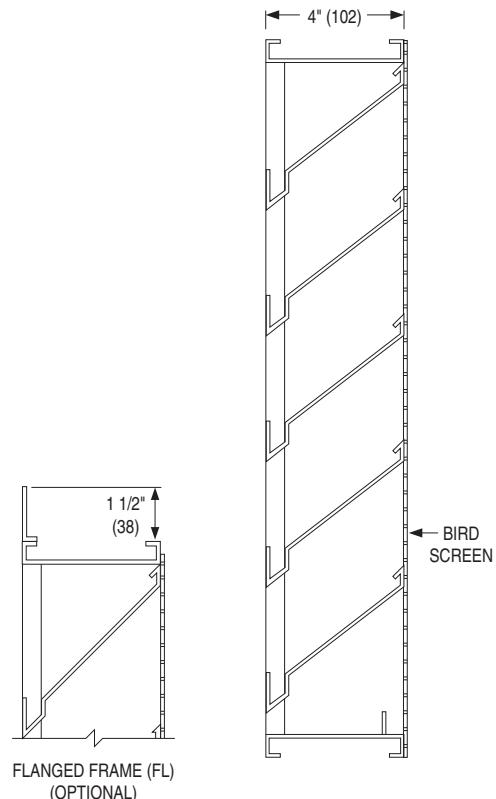
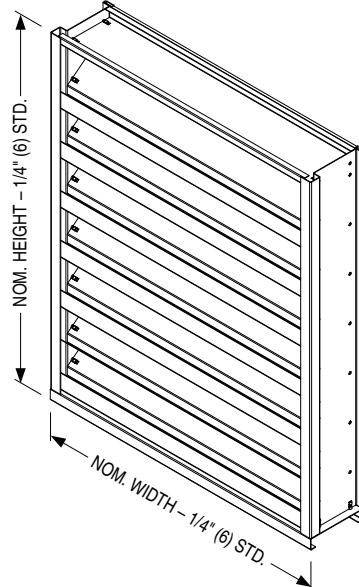
- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 304 | Type 304 S.S. Construction. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> 18GA | 18 Gauge Construction. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> 16GA | 16 Gauge Construction. | | |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
- PC4** High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____.
- PC5** Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____.
- PCC** Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
- U38** Undersize 3/8" (9.5).
- U50** Undersize 1/2" (12.7).



SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	
CONTRACTOR:	

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
12 - 1 - 10	1700	1704SDHP-1 11-16-09	1704DHP



FORMED STEEL STATIONARY LOUVER
4" (102) DEEP • DRAINABLE BLADE
HIGH PERFORMANCE
PERFORMANCE DATA
MODEL: 1704DHP (1704SDHP)

FREE AREA in Square Feet and Square Meters

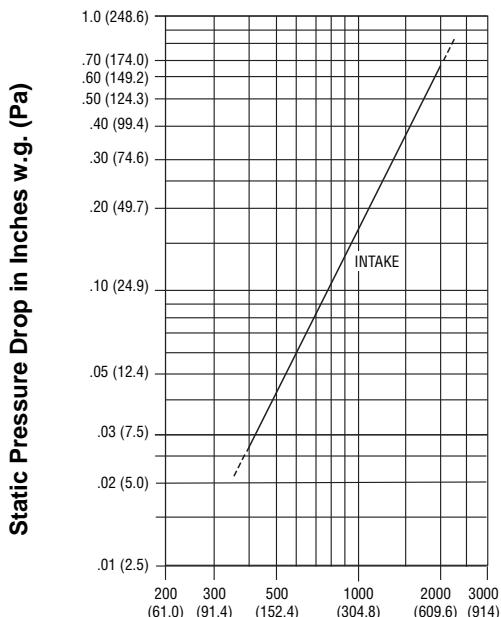
	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12	0.31	0.48	0.66	0.83	1.01	1.19	1.36	1.54	1.71
18	0.58	0.91	1.24	1.57	1.90	2.23	2.56	2.89	3.22
24	0.89	1.39	1.90	2.41	2.91	3.42	3.93	4.43	4.94
30	1.16	1.82	2.48	3.14	3.80	4.46	5.13	5.79	6.45
36	1.43	2.24	3.06	3.88	4.69	5.51	6.32	7.14	7.96
42	1.74	2.73	3.72	4.71	5.71	6.70	7.69	8.68	9.68
48	2.01	3.15	4.30	5.45	6.60	7.74	8.55	10.04	11.19
54	2.32	3.64	4.96	6.29	7.61	8.93	10.26	11.58	12.91
60	2.59	4.07	5.54	7.02	8.50	9.98	11.46	12.94	14.41
66	2.86	4.49	6.12	7.76	9.39	11.02	12.66	14.29	15.92
72	3.17	4.98	6.79	8.59	10.40	12.21	14.02	15.83	17.64
78	3.44	5.40	7.37	9.33	11.29	13.26	15.22	17.19	19.15
84	3.75	5.89	8.03	10.17	12.31	14.45	16.59	18.73	20.87
90	4.02	6.31	8.61	10.90	13.20	15.49	17.79	20.08	22.38
96	4.29	6.74	9.19	11.64	14.09	16.54	18.99	21.44	23.89

AIRFLOW / WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

Free Area %	53%
Free Area sq. ft. (sq. m.)	8.55 (0.76)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	896 fpm (273 m/min.)
	Air Volume at 896 fpm
	7661 cfm (3615 l/s)
	Free Area Velocity
	.14 in. w.g. (35 Pa)
	Pressure Drop @ 896 fpm

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area
Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5-6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:		DATE	B SERIES
CONTRACTOR:		12 - 1 - 10	1700
			1704DHP



FORMED STEEL STATIONARY LOUVER 6" (152) DEEP • DRAINABLE BLADE MODEL: 1706D (1706SD)

Model 1706D, drainable blade type formed louver, provides excellent weather protection in a 6" (152) deep frame, with good air performance and pleasing aesthetics that compliment any structure's exterior styling. Suitable for use in exhaust and low to medium velocity intake applications, the drainable blade design utilizes rain gutters that divert collected water down concealed side downspouts and out the sill. Galvanized steel construction is economical, yet durable and the design provides good air performance through it's 50% free area as well as excellent protection against the elements. Model 1706D is available with channel or flanged type frame to suit most architectural and mechanical installation requirements and is AMCA Licensed.

STANDARD CONSTRUCTION:

- FRAME:** 6" (152) deep, 18 ga. (1.3) formed galvanized steel.
BLADES: 20 ga. (1.0) formed galvanized steel. Drainable style.
BLADE ANGLE: Fixed at 45 degrees.
BLADE SPACING: Approx. 5 1/2" (140) on centers.
SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).
FINISH: Mill.
MINIMUM SIZE: 12" wide x 12" high (305 x 305).
MAXIMUM SINGLE SECTION SIZE: 60" wide x 96" high (1524 x 2438). Larger louvers will require field assembly of smaller sections.

OPTIONS:

- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 304 | Type 304 S.S. Construction. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> 18GA | 18 Gauge Construction. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> 16GA | 16 Gauge Construction. | | |

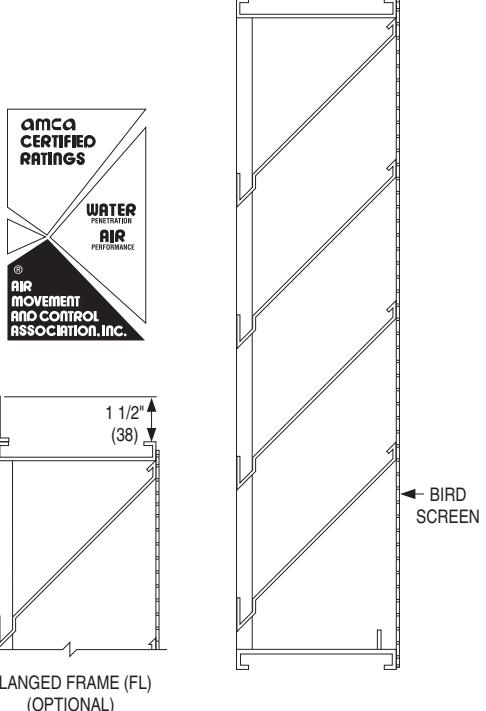
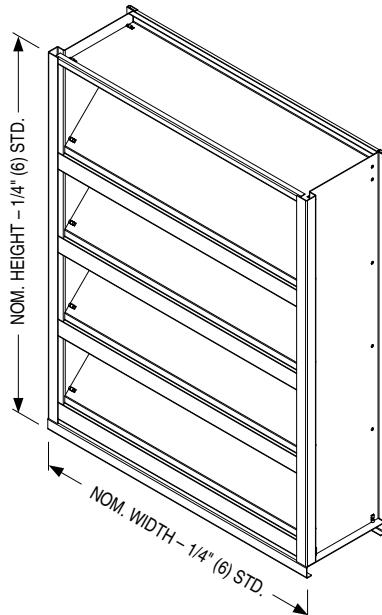
OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
 PC4 High Performance Powder Coat AAMA 2604
 (Equivalent to 50% Kynar®). Color: _____.
 PC5 Fluoropolymer Powder Coat AAMA 2605
 (Equivalent to 70% Kynar®). Color: _____.

- PCC** Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
 U38 Undersize 3/8" (9.5).
 U50 Undersize 1/2" (12.7).



SCHEDULE TYPE:	Page 1 of 2			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE B SERIES SUPERSEDES DRAWING NO.			
CONTRACTOR:	2 - 2 - 11 1700 1706SD-1 6 - 3 - 09 1706D			



Nailor[®]
Industries Inc.

**FORMED STEEL STATIONARY LOUVER
6" (152) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1706D (1706SD)**

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 0.30	0.18 0.02	0.28 0.03	0.38 0.04	0.48 0.05	0.59 0.05	0.69 0.06	0.79 0.07	0.89 0.08	0.99 0.09
18 0.46	0.46 0.04	0.73 0.07	0.99 0.09	1.25 0.12	1.52 0.14	1.78 0.17	2.05 0.19	2.31 0.21	2.57 0.24
24 0.61	0.75 0.07	1.17 0.11	1.60 0.15	2.02 0.19	2.45 0.23	2.88 0.27	3.30 0.31	3.73 0.35	4.15 0.39
30 0.76	1.03 0.10	1.62 0.15	2.21 0.20	2.79 0.26	3.38 0.31	3.97 0.37	4.56 0.42	5.15 0.48	5.73 0.53
36 0.91	1.31 0.12	2.06 0.19	2.81 0.26	3.56 0.33	4.31 0.40	5.06 0.47	5.81 0.54	6.56 0.61	7.31 0.68
42 1.07	1.60 0.15	2.51 0.23	3.42 0.32	4.33 0.40	5.25 0.49	6.16 0.57	7.07 0.66	7.98 0.74	8.89 0.83
48 1.22	1.88 0.17	2.95 0.27	4.03 0.37	5.10 0.47	6.18 0.57	7.25 0.67	8.05 0.75	9.40 0.87	10.47 0.97
54 1.37	2.16 0.20	3.40 0.32	4.64 0.43	5.87 0.55	7.11 0.66	8.35 0.78	9.58 0.89	10.82 1.01	12.05 1.12
60 1.52	2.45 0.23	3.85 0.36	5.24 0.49	6.64 0.62	8.04 0.75	9.44 0.88	10.84 1.01	12.24 1.14	13.63 1.27
66 1.68	2.73 0.25	4.29 0.40	5.85 0.54	7.41 0.69	8.97 0.83	10.53 0.98	12.09 1.12	13.65 1.27	15.21 1.41
72 1.83	3.01 0.28	4.74 0.44	6.46 0.60	8.18 0.76	9.90 0.92	11.63 1.08	13.35 1.24	15.07 1.40	16.79 1.56
78 1.98	3.30 0.31	5.18 0.48	7.07 0.66	8.95 0.83	10.84 1.01	12.72 1.18	14.61 1.36	16.49 1.53	18.37 1.71
84 2.13	3.58 0.33	5.63 0.52	7.67 0.71	9.72 0.90	11.77 1.09	13.81 1.28	15.86 1.47	17.91 1.66	19.95 1.85
90 2.29	3.87 0.36	6.07 0.56	8.28 0.77	10.49 0.97	12.70 1.18	14.91 1.39	17.12 1.59	19.33 1.80	21.53 2.00
96 2.44	4.15 0.39	6.52 0.61	8.89 0.83	11.26 1.05	13.63 1.27	16.00 1.49	18.37 1.71	20.74 1.93	23.11 2.15

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

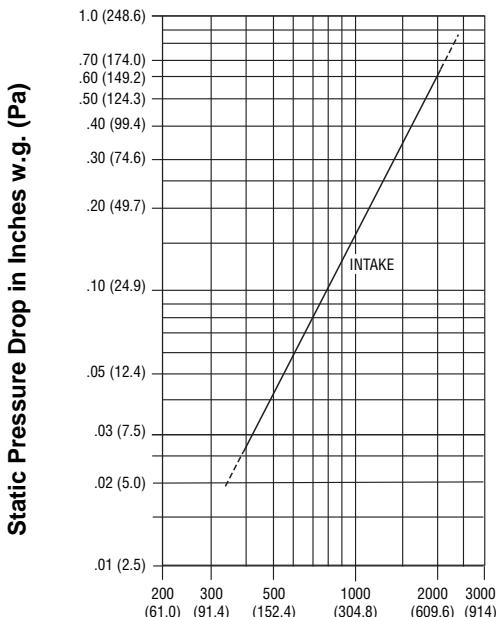
Free Area %	50%
Free Area sq. ft. (sq. m.)	8.05 (0.75)
INTAKE Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	847 fpm (258 m/min.)
AIR VOLUME at 847 fpm	6818 cfm (3217 l/s)
Free Area Velocity	
Pressure Drop @ 847 fpm	.12 in. w.g. (30 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.



Nailor Industries Inc. certifies the Model 1706D shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. Seal applies to air performance ratings and water penetration ratings.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5-6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:			
CONTRACTOR:	2 - 2 - 11	1700	1706SD-2 6 - 3 - 09
			1706D



**FORMED STEEL STATIONARY LOUVER
6" (152) DEEP • DRAINABLE BLADE
HIGH PERFORMANCE
MODEL: 1706DHP (1706SDHP)**

Model 1706DHP, high performance drainable blade type formed steel louver, provides excellent weather protection in a 6" (152) deep frame, with superior air performance and pleasing aesthetics that compliment any structure's exterior styling. Suitable for use in exhaust and low to medium velocity intake applications, the drainable blade design utilizes rain gutters that divert collected water down concealed side downspouts and out the sill. Galvanized steel construction is economical, yet durable and the design provides excellent air performance at higher velocities through its 56% free area as well as maximum protection against the elements. Model 1706DHP is available with channel or flanged type frame to suit most architectural and mechanical installation requirements.

STANDARD CONSTRUCTION:

- FRAME:** 6" (152) deep, 20 ga. (1.0) formed galvanized steel.
BLADES: 20 ga. (1.0) formed galvanized steel. Drainable style.
BLADE ANGLE: Fixed at 37.5 degrees.
BLADE SPACING: Approx. 4 1/2" (114) on centers.
SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).
FINISH: Mill.
MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 60" wide x 96" high (1524 x 2438). Larger louvers will require field assembly of smaller sections.

OPTIONS:

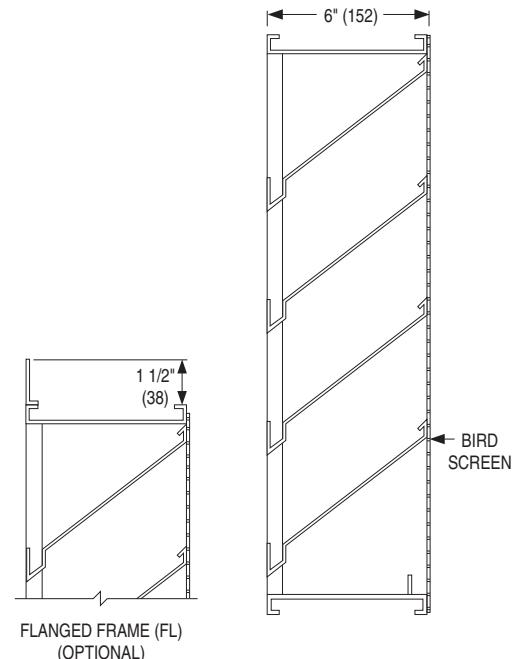
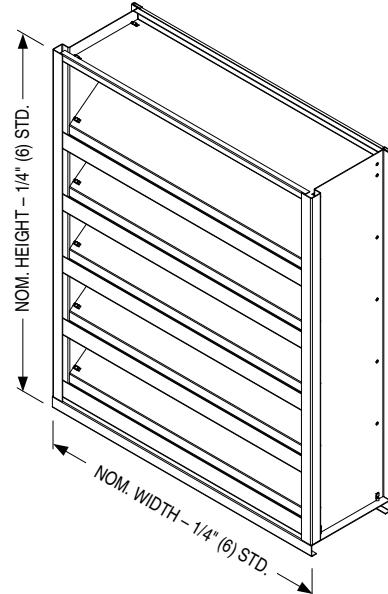
- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 304 | Type 304 S.S. Construction. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> 18GA | 18 Gauge Construction. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> 16GA | 16 Gauge Construction. | | |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
 PC4 High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____.
 PC5 Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____.
 PCC Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
 U38 Undersize 3/8" (9.5).
 U50 Undersize 1/2" (12.7).



FLANGED FRAME (FL)
(OPTIONAL)

SCHEDULE TYPE:	Page 1 of 2			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	12 - 1 - 10	1700	1706SDHP-1 11-16-09	1706DHP



**FORMED STEEL STATIONARY LOUVER
6" (152) DEEP • DRAINABLE BLADE
HIGH PERFORMANCE
PERFORMANCE DATA
MODEL: 1706DHP (1706SDHP)**

FREE AREA in Square Feet and Square Meters

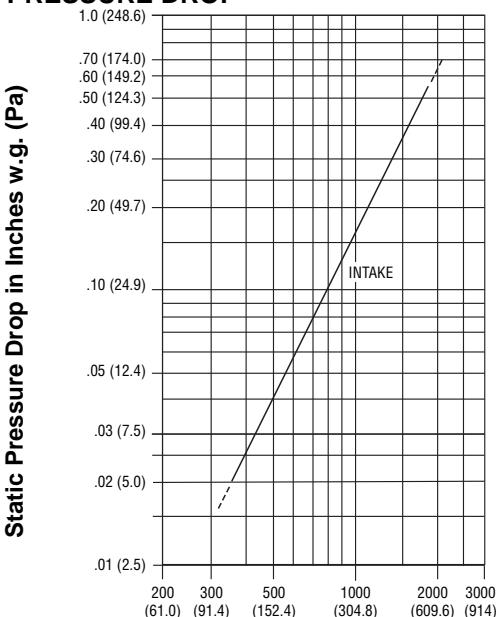
	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 0.30	0.26 0.02	0.40 0.04	0.55 0.05	0.70 0.06	0.84 0.08	0.99 0.09	1.14 0.11	1.28 0.12	1.43 0.13
	0.53 0.05	0.83 0.08	1.13 0.11	1.43 0.13	1.73 0.16	2.03 0.19	2.34 0.22	2.64 0.25	2.94 0.27
18 0.46	0.84 0.08	1.31 0.12	1.79 0.17	2.27 0.21	2.75 0.26	3.23 0.30	3.70 0.34	4.18 0.39	4.66 0.43
	1.15 0.11	1.82 0.17	2.48 0.23	3.14 0.29	3.80 0.35	4.46 0.41	5.13 0.47	5.79 0.53	6.45 0.59
24 0.61	1.45 0.14	2.28 0.21	3.12 0.29	3.95 0.37	4.78 0.44	5.61 0.52	6.44 0.60	7.27 0.68	8.10 0.75
	1.76 0.16	2.77 0.26	3.78 0.35	4.78 0.44	5.79 0.54	6.80 0.63	7.81 0.73	8.81 0.82	9.82 0.91
30 0.76	2.03 0.19	3.20 0.30	4.36 0.40	5.52 0.51	6.68 0.62	7.84 0.73	9.05 0.84	10.17 0.94	11.33 1.05
	2.34 0.22	3.68 0.34	5.02 0.47	6.36 0.59	7.70 0.72	9.03 0.84	10.37 0.98	11.71 1.09	13.05 1.21
36 0.91	2.65 0.25	4.17 0.39	5.68 0.53	7.20 0.67	8.71 0.81	10.23 0.95	11.74 1.09	13.26 1.23	14.77 1.37
	2.96 0.27	4.65 0.43	6.34 0.59	8.03 0.75	9.73 0.90	11.42 1.06	13.11 1.22	14.80 1.37	16.49 1.53
42 1.07	3.27 0.30	5.14 0.48	7.00 0.65	8.87 0.82	10.74 1.00	12.61 1.17	14.48 1.34	16.34 1.52	18.21 1.69
	3.54 1.98	5.56 0.33	7.58 0.52	9.61 0.70	11.63 0.89	13.65 1.08	15.68 1.27	17.70 1.46	19.72 1.83
48 1.22	3.85 2.13	5.89 0.36	8.03 0.56	10.17 0.77	12.31 0.97	14.45 1.17	16.59 1.38	18.73 1.58	20.87 1.99
	4.16 2.29	6.31 0.39	8.61 0.61	10.90 0.83	13.20 1.05	15.49 1.27	17.79 1.49	20.08 1.71	22.38 1.93
54 1.37	4.47 2.44	7.02 0.41	9.57 0.65	12.12 0.89	14.67 1.13	17.23 1.36	19.78 1.60	22.33 1.84	24.88 2.07

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	56%
Free Area sq. ft. (sq. m.)	9.05 (0.84)
INTAKE	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	988 fpm (301 m/min.)
AIR VOLUME	8941 cfm (4219 l/s)
Free Area Velocity	
Pressure Drop @ 988 fpm	.16 in. w.g. (40 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

Tested to AMCA Fig. 5.5-6.5.

Page 2 of 2

Dimensions are in inches (mm).

SCHEDULE TYPE:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
PROJECT:				
ENGINEER:				
CONTRACTOR:	12 - 1 - 10	1700	1706SDHP-2 11 - 16 - 09	1706DHP



FORMED STEEL ADJUSTABLE LOUVER 4" (102) DEEP • DRAINABLE BLADE MODEL: 1704AD

Model 1704AD adjustable, drainable blade louver combines architecturally pleasing aesthetics with airflow control including tight shut-off. Suitable for use in exhaust and low to medium velocity intake applications, the design features a drainable blade with rain gutters that divert collected water down concealed side downspouts and out the sill. Rugged galvanized steel construction provides excellent durability. The blades can be operated manually or with an actuator to provide tight shut-off when desired. Model 1704AD provides operable flexibility as well as excellent protection against the elements.

STANDARD CONSTRUCTION:

FRAME: 4" (102) deep, 16 ga. (1.6) formed galvanized steel.
BLADES: 16 ga. (1.6) formed galvanized steel at 37 1/2 degree angle. Drainable style.
BLADE SPACING: Approx. 3 1/2" (89) on centers.
JAMB SEALS: Compression type cambered metal.
AXLES: 1/2" (13) dia. plated steel.
BEARINGS: 1/2" (13) dia. stainless steel sleeve type.
LINKAGE: Plated steel. Concealed in frame.
OPERATOR: Hand locking louver quadrant.
SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).
FINISH: Mill.

MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 48" wide x 96" high (1219 x 2438) with jamb and/or blade seals. 60" wide x 96" high (1524 x 2438) without seals. Larger louvers will require field assembly of smaller sections.

OPTIONS:

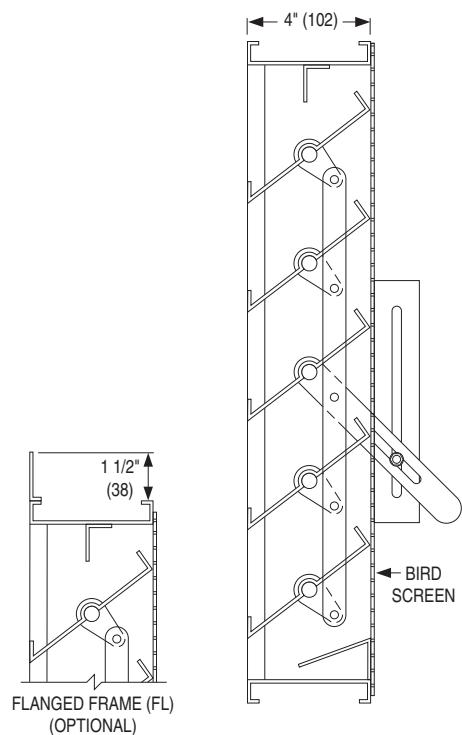
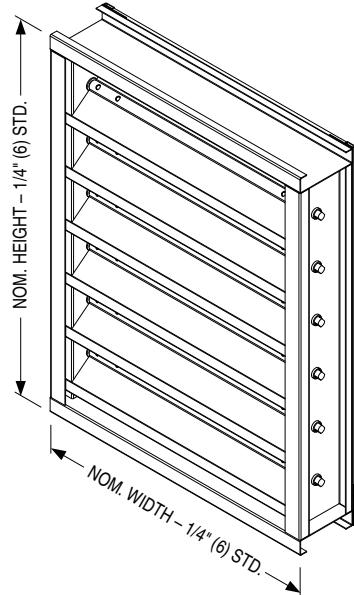
- | | | | |
|--------------------------------------|------------------------------|--|---------------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> PBV | PVC Blade Seals. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> JSN | No Jamb Seals. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> ACT | Electric or Pneumatic Actuator. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | Specify: _____. | |
| <input type="checkbox"/> 304 | Type 304 S.S. Construction. | <input type="checkbox"/> Other: | _____. |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
 PC4 High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____.
 PC5 Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____.
 PCC Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
 U38 Undersize 3/8" (9.5).
 U50 Undersize 1/2" (12.7).



SCHEDULE TYPE:	Page 1 of 2			
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE B SERIES SUPERSEDES DRAWING NO.			
CONTRACTOR:	12 - 1 - 10 1700 5 - 3 - 10 1704AD			



Nailor[®]
Industries Inc.

**FORMED STEEL ADJUSTABLE LOUVER
4" (102) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1704AD**

FREE AREA in Square Feet and Square Meters

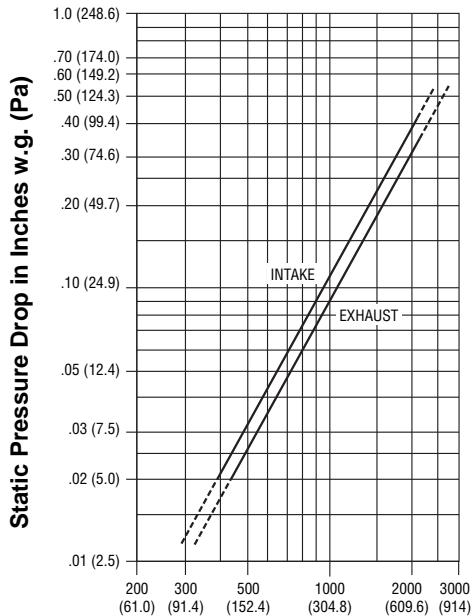
Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 .30	0.25 0.02	0.45 0.04	0.64 0.06	0.84 0.08	1.04 0.10	1.24 0.11	1.43 0.13	1.63 0.15	1.83 0.17
18 .46	0.44 0.04	0.78 0.07	1.13 0.10	1.47 0.14	1.81 0.17	2.16 0.20	2.50 0.23	2.85 0.26	3.19 0.30
24 .61	0.66 0.06	1.18 0.11	1.70 0.16	2.22 0.21	2.74 0.25	3.26 0.30	3.78 0.35	4.30 0.40	4.82 0.45
30 .76	0.85 0.08	1.51 0.14	2.18 0.20	2.85 0.26	3.52 0.33	4.18 0.39	4.85 0.45	5.52 0.51	6.18 0.57
36 .91	1.02 0.09	1.83 0.17	2.63 0.24	3.44 0.32	4.24 0.39	5.05 0.47	5.85 0.54	6.65 0.62	7.46 0.69
42 1.07	1.21 0.11	2.16 0.20	3.12 0.29	4.07 0.38	5.02 0.47	5.97 0.55	6.93 0.64	7.88 0.73	8.83 0.82
48 1.22	1.40 0.13	2.51 0.23	3.61 0.34	4.71 0.44	5.82 0.54	6.92 0.64	8.03 0.75	9.13 0.85	10.23 0.95
54 1.37	1.58 0.15	2.83 0.26	4.07 0.38	5.32 0.49	6.56 0.61	7.80 0.73	9.05 0.84	10.29 0.96	11.54 1.07
60 1.52	1.78 0.17	3.18 0.30	4.58 0.43	5.98 0.56	7.37 0.69	8.77 0.82	10.17 0.95	11.57 1.08	12.97 1.21
66 1.68	1.96 0.18	3.49 0.32	5.03 0.47	6.57 0.61	8.11 0.75	9.65 0.90	11.19 1.04	12.73 1.18	14.27 1.33
72 1.83	2.19 0.20	3.92 0.36	5.64 0.52	7.36 0.68	9.09 0.84	10.81 1.00	12.54 1.16	14.26 1.32	15.98 1.48
78 1.98	2.36 0.22	4.22 0.39	6.08 0.57	7.94 0.74	9.80 0.91	11.66 1.08	13.52 1.26	15.38 1.43	17.24 1.60
84 2.13	2.56 0.24	4.57 0.42	6.58 0.61	8.60 0.80	10.61 0.99	12.62 1.17	14.64 1.36	16.65 1.55	18.66 1.73
90 2.29	2.74 0.25	4.89 0.45	7.04 0.65	9.20 0.85	11.35 1.05	13.51 1.25	15.66 1.45	17.81 1.65	19.97 1.86
96 2.44	2.93 0.27	5.23 0.49	7.53 0.70	9.84 0.91	12.14 1.13	14.44 1.34	16.74 1.56	19.05 1.77	21.35 1.98

**AIRFLOW / WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	50%
Free Area sq. ft. (sq. m.)	8.03 (0.75)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
K E	Air Volume at 991 fpm
	Free Area Velocity
	Pressure Drop @ 991 fpm

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area
Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:			
CONTRACTOR:			
	DATE	B SERIES	SUPERSEDES
	12 - 1 - 10	1700	5 - 3 - 10
			1704AD



FORMED STEEL ADJUSTABLE LOUVER 6" (152) DEEP • DRAINABLE BLADE MODEL: 1706AD

Model 1706AD adjustable, drainable blade louver combines architecturally pleasing aesthetics with airflow control including tight shut-off. Suitable for use in exhaust and low to medium velocity intake applications, the design features a drainable blade with rain gutters that divert collected water down concealed side downspouts and out the sill. Rugged galvanized steel construction provides excellent durability. The blades can be operated manually or with an actuator to provide tight shut-off when desired. Model 1706AD provides operable flexibility as well as excellent protection against the elements.

STANDARD CONSTRUCTION:

- FRAME:** 6" (152) deep, 16 ga. (1.6) formed galvanized steel.
BLADES: 16 ga. (1.6) formed galvanized steel at 37 1/2 degree angle. Drainable style.
BLADE SPACING: Approximately 5" (127) on centers.
JAMB SEALS: Compression type cambered metal.
AXLES: 1/2" (13) dia. plated steel.
BEARINGS: 1/2" (13) dia. stainless steel sleeve type.
LINKAGE: Plated steel. Concealed in frame.
OPERATOR: Hand locking louver quadrant.
SCREEN: 1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird screen in removable frame (adds approximately 3/8" [10] to louver depth).
FINISH: Mill.

MINIMUM SIZE: 12" wide x 12" high (305 x 305).

MAXIMUM SINGLE SECTION SIZE: 48" wide x 96" high (1219 x 2438) with jamb and/or blade seals. 60" wide x 96" high (1524 x 2438) without seals. Larger louvers will require field assembly of smaller sections.

OPTIONS:

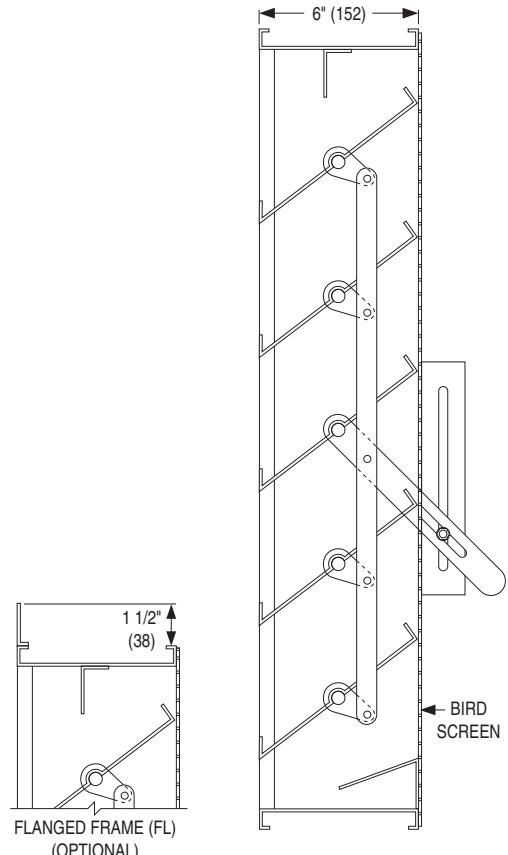
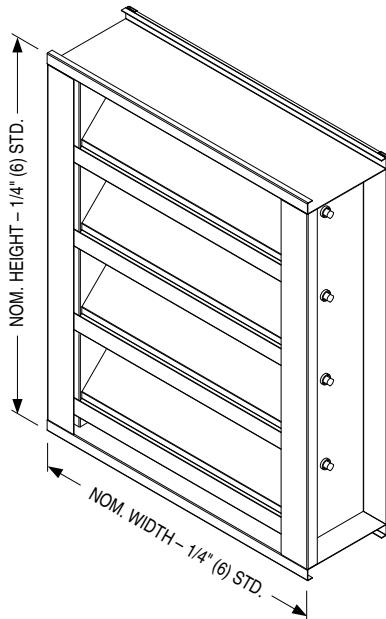
- | | | | |
|--------------------------------------|------------------------------|-------------------------------------|---------------------------------|
| <input type="checkbox"/> FL | Flanged Frame. | <input type="checkbox"/> 316 | Type 316 S.S. Construction. |
| <input type="checkbox"/> BPV | PVC Blade Seals. | <input type="checkbox"/> WE | Welded Construction. |
| <input type="checkbox"/> JSN | No Jamb Seals. | <input type="checkbox"/> ESI | Extended Sill. |
| <input type="checkbox"/> BSA | Aluminum Bird Screen. | <input type="checkbox"/> FR1 | 1" (25) Filter Rack. |
| <input type="checkbox"/> BSSS | Type 304 S.S. Bird Screen. | <input type="checkbox"/> FR2 | 2" (51) Filter Rack. |
| <input type="checkbox"/> BSN | No Bird Screen. | <input type="checkbox"/> PAC | Perimeter Anchor Clips. |
| <input type="checkbox"/> ISA | Aluminum Insect Screen. | <input type="checkbox"/> ACT | Electric or Pneumatic Actuator. |
| <input type="checkbox"/> ISSS | Type 304 S.S. Insect Screen. | Specify: _____. | |
| <input type="checkbox"/> 304 | Type 304 S.S. Construction. | <input type="checkbox"/> | Other: _____. |

OPTIONAL FINISHES:

- PC3** Powder Coat AAMA 2603. Color: _____.
 PC4 High Performance Powder Coat AAMA 2604
(Equivalent to 50% Kynar®). Color: _____.
 PC5 Fluoropolymer Powder Coat AAMA 2605
(Equivalent to 70% Kynar®). Color: _____.
 PCC Prime Coat.

OPTIONAL W x H SIZING (1/4" [6.5] Undersize standard):

- U00** Exact Size.
 U38 Undersize 3/8" (9.5).
 U50 Undersize 1/2" (12.7).



SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	
CONTRACTOR:	

Page 1 of 2
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
12 - 1 - 10	1700	5 - 3 - 10	1706AD



Nailor[®]
Industries Inc.

**FORMED STEEL ADJUSTABLE LOUVER
6" (152) DEEP • DRAINABLE BLADE
PERFORMANCE DATA
MODEL: 1706AD**

FREE AREA in Square Feet and Square Meters

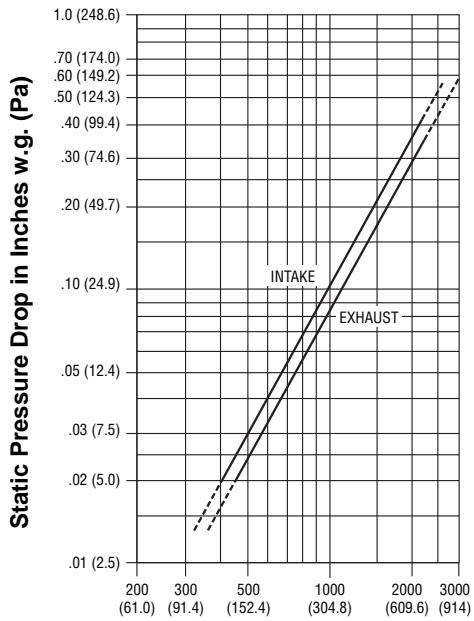
Height in Inches and Meters	Width in Inches and Meters								
	12 0.30	18 0.46	24 0.61	30 0.76	36 0.91	42 1.07	48 1.22	54 1.37	60 1.52
12 .30	0.30 0.03	0.53 0.05	0.76 0.07	0.99 0.09	1.23 0.11	1.46 0.14	1.69 0.16	1.93 0.18	2.16 0.20
18 .46	0.49 0.05	0.88 0.08	1.26 0.12	1.65 0.15	2.03 0.19	2.42 0.22	2.80 0.26	3.19 0.30	3.57 0.33
24 .61	0.69 0.06	1.23 0.11	1.76 0.16	2.30 0.21	2.84 0.26	3.38 0.31	3.92 0.36	4.46 0.41	5.00 0.46
30 .76	0.88 0.08	1.57 0.15	2.26 0.21	2.95 0.27	3.65 0.34	4.34 0.40	5.03 0.47	5.72 0.53	6.41 0.60
36 .91	1.09 0.10	1.95 0.18	2.80 0.26	3.66 0.34	4.52 0.42	5.37 0.50	6.23 0.58	7.09 0.66	7.94 0.74
42 1.07	1.34 0.12	2.40 0.22	3.46 0.32	4.51 0.42	5.57 0.52	6.63 0.62	7.68 0.71	8.74 0.81	9.80 0.91
48 1.22	1.54 0.14	2.75 0.26	3.96 0.37	5.17 0.48	6.38 0.59	7.59 0.71	8.80 0.82	10.01 0.93	11.22 1.04
54 1.37	1.74 0.16	3.10 0.29	4.47 0.41	5.83 0.54	7.20 0.67	8.56 0.80	9.93 0.92	11.29 1.05	12.66 1.18
60 1.52	1.93 0.18	3.45 0.32	4.97 0.46	6.49 0.60	8.01 0.74	9.53 0.89	11.05 1.03	12.58 1.17	14.10 1.31
66 1.68	2.14 0.20	3.82 0.35	5.50 0.51	7.18 0.67	8.86 0.82	10.55 0.98	12.23 1.14	13.91 1.29	15.59 1.45
72 1.83	2.39 0.22	4.27 0.40	6.16 0.57	8.04 0.75	9.92 0.92	11.80 1.10	13.69 1.27	15.57 1.45	17.45 1.62
78 1.98	2.59 0.24	4.63 0.43	6.67 0.62	8.70 0.81	10.74 1.00	12.78 1.19	14.82 1.38	16.86 1.57	18.89 1.76
84 2.13	2.78 0.26	4.97 0.46	7.16 0.67	9.35 0.87	11.55 1.07	13.74 1.28	15.93 1.48	18.12 1.68	20.31 1.89
90 2.29	2.98 0.28	5.33 0.49	7.67 0.71	10.02 0.93	12.36 1.15	14.71 1.37	17.05 1.58	19.40 1.80	21.74 2.02
96 2.44	3.19 0.30	5.69 0.53	8.20 0.76	10.71 0.99	13.21 1.23	15.72 1.46	18.23 1.69	20.73 1.93	23.24 2.16

**AIRFLOW/WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size**

Free Area %	55%
Free Area sq. ft. (sq. m.)	8.80 (0.82)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)
	977 fpm (298 m/min.)
	Air Volume at 977 fpm Free Area Velocity
	8598 cfm (4057 l/s)
	Pressure Drop @ 977 fpm
	.10 in. w.g. (25 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the point of beginning water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area
Louver test size: 48" x 48" (1219 x 1219 mm). Standard air density @ 0.075 lbs/ft³.

SCHEDULE TYPE:			
PROJECT:			
ENGINEER:			
CONTRACTOR:			
	DATE	B SERIES	SUPERSEDES
	12 - 1 - 10	1700	5 - 3 - 10
			1706AD

- CAST OR EXTRUDED ALUMINUM
- HEAVY DUTY CONSTRUCTION
- FOR NEW CONSTRUCTION OR RENOVATIONS

MODELS:

16BVC CAST ALUMINUM

16BVE EXTRUDED ALUMINUM

16BVF EXTRUDED ALUMINUM WITH FLANGE



Model 16BVF

Model 16BVC

Model 16BVE

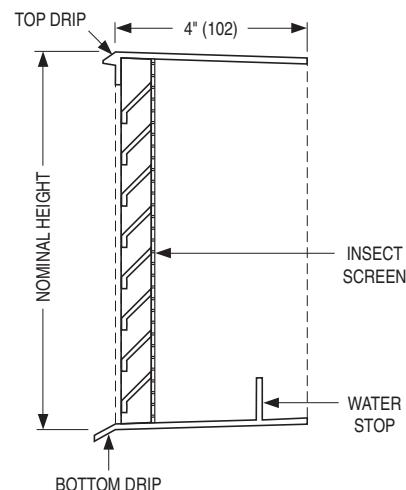
Nailor 16BV Series Brick Vents provide a permanent, secure means of ventilating foundations, crawl spaces and other utility areas. All models incorporate a rear water stop and full width weepage openings for minimal water penetration during severe weather. Rugged cast or extruded aluminum construction resists potential damage due to vandalism, allowing for installation in accessible exterior areas. Standard insect screen prevents unwanted pests from entering through the vent. All models are available with an optional damper for volume control and an extended sleeve suitable for duct connection if desired.

MODEL 16BVC

Model 16BVC features corrosion resistant cast aluminum construction that is suitable for load bearing applications, ideal for new construction. Deep louvered blades exhibit a minimum 39% free area and provide for minimal through-viewing. A rear water stop minimizes water penetration, and top and bottom drips prevent water from staining brick.

MODEL 16BVC STANDARD CONSTRUCTION:

FRAME:	4" (102) deep, #319 cast aluminum, minimum .125" (3) thickness.
BLADES:	#319 cast aluminum, minimum .125" (3) thickness, with cast face mullions on 8" (203) centers.
SCREEN:	7 x 7 aluminum mesh insect screen.
FINISH:	Mill. Optional finishes are available.
STD. SIZES:	Width x Height 8" x 2 1/4" (203 x 57) 8 1/4" x 4 15/16" (210 x 125) 8" x 7 7/8" (203 x 200) 12" x 2 3/4" (305 x 70) 12" x 3 1/2" (305 x 89) 12" x 5" (305 x 127) 12" x 7 3/4" (305 x 197) 16 1/2" x 2 3/8" (419 x 60) 16" x 4" (406 x 102) 16" x 4 15/16" (406 x 125) 16" x 6" (406 x 152) 16" x 7 3/4" (406 x 197)



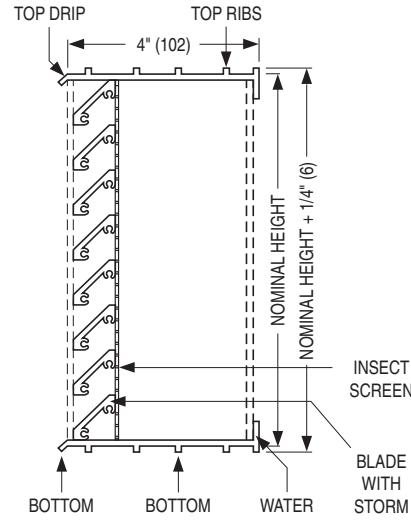
MODEL 16BVC

MODEL 16BVE

Model 16BVE features corrosion resistant extruded aluminum construction with top and bottom mortar ribs, ideal for new construction. Overlapping blades with storm lip exhibit a 35% free area and, combined with a rear frame water stop, minimize water penetration. Integral top and bottom drips prevent water from staining brick.

MODEL 16BVE STANDARD CONSTRUCTION:

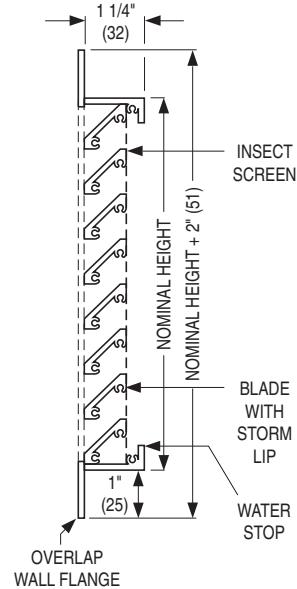
- FRAME:** 4" (102) deep, Type 6063-T5 extruded aluminum, .125" (3.18) nominal wall thickness. Integral top and bottom mortar ribs.
- BLADES:** 1" (25) deep on 1" (25) centers, Type 6063-T5 extruded aluminum, .125" (3.18) nominal wall thickness, fixed at 45 degrees, with integral storm lip.
- SCREEN:** 18 x 14 mesh aluminum insect screen.
- FINISH:** 204-R1 clear anodized finish. Optional finishes are available.
- STD. SIZES:** See below. Non-standard sizes are also available.
- NOTE: For Model 16BVE, **heights** shown below do not include top and bottom mortar ribs (add 1/4" (6)).

**MODEL 16BVE****MODEL 16BVF**

Model 16BVF features corrosion resistant extruded aluminum construction with a flanged frame that is ideal for use in renovations or existing openings. The 1" (25) flange provides an attractive finished appearance that conceals any rough edges in the opening. Overlapping blades with storm lip exhibit a 35% free area and, combined with a rear frame water stop, minimize water penetration.

MODEL 16BVF STANDARD CONSTRUCTION:

- FRAME:** 1 1/4" (32) deep, with integral 1" (25) flange, Type 6063-T5 extruded aluminum, .125" (3.18) nominal wall thickness.
- BLADES:** 1" (25) deep on 1" (25) centers, Type 6063-T5 extruded aluminum, .125" (3.18) nominal wall thickness, fixed at 45 degrees, with integral storm lip.
- SCREEN:** 18 x 14 mesh aluminum insect screen.
- FINISH:** 204-R1 clear anodized finish. Optional finishes are available.
- STD. SIZES:** See below. Non-standard sizes are also available.
- NOTE: For Model 16BVF, **widths** shown below do not include blade fasteners (add 1/4" (6)).

**MODEL 16BVF****MODELS 16BVE & 16BVF STANDARD SIZES (Width x Height):**

8 1/8" x 2 3/8" (206 x 60)	12" x 7 3/4" (305 x 197)	16 1/2" x 2 3/8" (419 x 60)	24" x 4 3/4" (610 x 121)
8 1/8" x 4 3/4" (206 x 121)	12" x 11 3/4" (305 x 298)	16 1/2" x 4 3/4" (419 x 121)	24" x 7 3/4" (610 x 197)
8 1/8" x 7 3/4" (206 x 197)	15 5/8" x 7 3/4" (397 x 197)	16 1/2" x 7 3/4" (419 x 197)	32" x 7 3/4" (813 x 197)
12" x 4 3/4" (305 x 121)	15 5/8" x 15 3/4" (397 x 400)	16 1/2" x 15 3/4" (419 x 400)	48" x 7 3/4" (1219 x 197)



Louver Finishes & Color Guide



Slate Blue



Light Gray



Western Tan



Forest Green



Barn Red



Almond



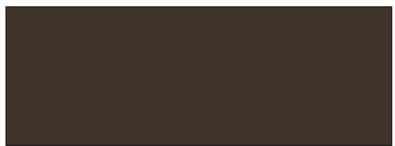
Black



Medium Bronze



Charcoal



Architectural Bronze



Surrey Beige



Burgundy



Coastal White



Gloss Black



Sandstone



Bone White



Regal Blue



Royal Brown



Clay



Vista Green



Campus Green

Nailor offers 21 standard paint colors selected for architectural exterior use which meet or exceed AAMA specifications and performance requirements for color retention, chalk resistance, gloss retention, erosion, corrosion and chemical resistance as well as dry film thickness and hardness. Our state-of-the-art powder coat system provides an environment friendly finishing solution with more uniform coverage and coating thickness. The result is an exceptional finish that better resists scratching, fading and general wear. Additional liquid coat facilities for special requirements complete our ability to provide unmatched beauty and durability for any application. Custom color matching is also available upon request. Contact your local Nailor representative.

Available Finishes

FINISH TYPE	DESCRIPTION	STANDARD WARRANTY
Fluoropolymer Powder Coat AAMA 2605-Superior Finish (AKA: Powdura® 5000, Coraflon® Powder, Interpon® D3000-Fluoromax)	"Ultimate" – A next generation hyper durable powder coating, based on FEVE fluoropolymer resins and ceramic pigmentation that the industry has acknowledged as the foundation for superior performance coatings. They provide a hard surface that is resistant to scratching and scuffing, with superior color and gloss retention, when applied to a variety of exterior architectural applications. This technology represents the "ultimate" in environmentally friendly finishes, with Zero-VOC emissions. A new alternative to traditional 70% Kynar 500® / Hylar 500® PVDF fluoropolymer liquid coatings.	10 years (Consult Nailor for availability of extended warranty)
High Performance Powder Coat AAMA 2604 – High Performance Finish (AKA: Powdura® 4000, Envirocron® Ultra Durable Powder, Dynadure™ 400, Interpon® D2000)	"Better" – A high performance polyester powder coating, based on "super durable" resins that utilize infrared reflective pigments, which provides excellent resistance to outdoor weathering. A harder and more environmentally friendly coating than other liquid paint counterparts and with Zero-VOC emissions. A good alternative to 50% Kynar 500® / Hylar 5000® liquid coatings.	5 years
Durable Powder Coat AAMA 2603 – Pigmented Organic Coatings (AKA: Powdura® 3000, Envirocron® Durable Powder, Dynadure™ 300, Interpon® D1000)	"Good" – A durable powder coat based on thermosetting polyester resin technology. Provides a good economical combination of physical and chemical resistance properties. Environmentally superior to liquid spray paints and Zero – VOC emissions.	1 year
Clear Anodize 215-R1 AA-M10C22A41 (0.7 mil. min.)	Architectural Class I. Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack. Recommended for severely corrosive and abrasive atmospheric exposure.	5 years
Clear Anodize 204-R1 AA-M10C22A31 (0.4 – 0.7 mil.)	Architectural Class II. Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack. Recommended for normal weather exposure.	1 year
Color Anodize AA-M10C22A44 (0.7 mil. min.)	Architectural Class I. "Two-step" aluminum coating process. Following a standard anodizing procedure, a second electrolytic process deposits colored metallic pigments which penetrate the aluminum oxide pores, producing a corrosion resistant, colorfast finish. Available in light, medium, dark bronze and black.	5 years
Prime Coat	Prime coat provides a stable base for painting of louvers in the field. Surface pretreatment includes degreasing and a chemical cleaning before an epoxy prime coat is applied. Finish coat should be field applied as soon as possible for best adhesion, after a thorough cleaning for dust etc. that can contaminate the final finish and cause premature flaking or peeling.	N/A

Paint finish warranties are not applicable to steel products.

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Coraflon® and Envirocron® are registered trademarks of PPG Industries Ohio, Inc.

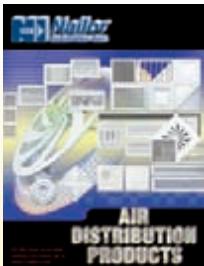
Interpon® is a registered trademark of Akzo Nobel Powder Coatings Ltd.

Kynar 500® is a registered trademark of Arkema, Inc.

Hylar 5000® is a registered trademark of Solvay Solexis, Inc.



Additional products from Nailor are presented in the following comprehensive catalogs.



**Air Distribution Products,
including:**

- Grilles and Registers
- Ceiling Diffusers
- Linear Diffusers
- Plenum Slot Diffusers
- Fire Rated Assemblies



**Air Control Products,
including:**

- Control Dampers
- Fire Dampers
- Ceiling Dampers
- Smoke Dampers
- Combination Fire/Smoke Dampers
- Access Doors



**VAV Terminal Units,
including:**

- Single Duct
- Dual Duct
- Fan Powered
- Bypass
- Retrofit



**Underfloor Air Distribution
Products, including:**

- Grilles and Registers
- Floor "Swirl" Diffusers
- Underfloor Fan Powered Terminal Units
- Underfloor Fan Coil Terminal Units



Digital Catalog:

The above four catalogs are also available together on CD Rom.

"Complete Air Control and Distribution Solutions"

www.nailor.com

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