

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

HEIGHT - 1/4" (6) STD.

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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 54% 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 and is AMCA Licensed.

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STANDARD CO	<b>DNSTRUCTION:</b>					NON NON		
FRAME:	4" (102) deep, 20 ga	. (1.	0) forme	ed galvanized steel.			///	
BLADES:	20 ga. (1.0) formed	galva	anized s	teel. Drainable style.			$\nearrow$	
BLADE ANGLE:	Fixed at 45 degrees							
BLADE SPACIN	G: Approx. 4" (102) on	cent	ers.				///	
SCREEN:				x 1.0) galvanized bird s			$\langle \rangle / \rangle$	
		(ad	ds app	roximately 3/8" [10] to	louver	NOM	MOTH - 1/4" (6) STD.	
EINIIGU .	depth).					<i>ν</i> ,	DTH I/A	
FINISH:	Mill.	005	005)				"4"(6) STD	$\mathbf{A}$
MINIMUM SIZE:	12" wide x 12" high	-			Leuwen			*
MAXIMUM SING				6" high (1524 x 2438). ly of smaller sections.	Larger		Γ	
OPTIONS:				.,				-
FL15 Flange	d Frame, 1 1/2" (38).		304	Type 304 S.S. Constru	ction.			-
-	d Frame, 2" (51).		316	Type 316 S.S. Constru			И	
BSA Alumir	um Bird Screen.		WE	Welded Construction.				×
🛛 BSSS Type 3	04 S.S. Bird Screen.		ESI	Extended Sill.				=
D BSN No Bir	d Screen.		FR1	1" (25) Filter Rack.			×	
🛛 ISA Alumir	um Insect Screen.		FR2	2" (51) Filter Rack.	CERTIFI	ED //		8
🛛 ISSS Type 3	04 S.S. Insect Screen.		PACA	Perimeter Anchor Clips	s.   //			-
🖵 18GA 18 Ga	uge Construction.						8	-
16GA 16 Gat	uge Construction.				AIR			
<b>OPTIONAL FIN</b>	ISHES:				MOVEMENT AND CONTRO Association	14. amaa.		<b>^</b>
D PC3 Powde	er Coat AAMA 2603. Co	lor:			INTERNATION			-
D PC4 High F	erformance Powder Co	at A	AMA 26	604				J
(Equiv	alent to 50% Kynar <sup>®</sup> ).	Colo	r:			1 1/2"		8
	polymer Powder Coat A				-	(38)		- BIRD
(Equiv	alent to 70% Kynar <sup>®</sup> ).	Colo	r:	·			8	SCREEN
PCC Prime	Coat.						ľ l	
OPTIONAL W >	<b>H SIZING</b> (1/4" [6.5]	Unde	ersize s	tandard):		ļ		
U00 Exact	Size.				Ĩ I	8		
DU38 Under	size 3/8" (9.5).						-	
DU50 Under	size 1/2" (12.7).					IGED FRAME		
					(FL1	5 STD.)		
SCHEDULE TYPE	:				_	-	e 1 of 2	
PROJECT:							e in inches (m	,
ENGINEER:					DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:					3 - 12 - 24	1700	12 - 1 - 10	1704D

Nailor Industries Inc. reserves the right to change any information concerning product or pricing without notice.

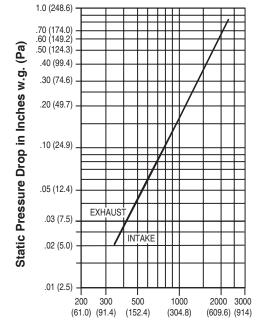


# FORMED STEEL STATIONARY LOUVER 4" (102) DEEP • DRAINABLE BLADE PERFORMANCE DATA MODEL: 1704D

### FREE AREA in Square Feet and Square Meters

			Width in Inches and Meters							
		12	18	24	30	36	42	48	54	60
		0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
	12	0.38	0.62	0.85	1.09	1.32	1.55	1.79	2.02	2.18
	0.30	0.04	0.06	0.08	0.10	0.12	0.14	0.17	0.19	0.20
	18	0.58	0.93	1.29	1.65	2.00	2.36	2.72	3.07	3.31
	0.46	0.05	0.09	0.12	0.15	0.19	0.22	0.25	0.29	0.31
	24	0.88	1.42	1.96	2.51	3.05	3.59	4.13	4.67	5.03
	0.61	0.08	0.13	0.18	0.23	0.28	0.33	0.38	0.43	0.47
	30	1.08	1.74	2.40	3.07	3.73	4.39	5.06	5.72	6.16
	0.76	0.10	0.16	0.22	0.29	0.35	0.41	0.47	0.53	0.57
	36	1.28	2.06	2.85	3.63	4.41	5.20	5.98	6.77	7.29
Meters	0.91	0.12	0.19	0.26	0.34	0.41	0.48	0.56	0.63	0.68
ete	42	1.58	2.55	3.52	4.49	5.46	6.43	7.40	8.37	9.02
ž	1.07	0.15	0.24	0.33	0.42	0.51	0.60	0.69	0.78	0.84
and	48	1.77	2.87	3.96	5.05	6.14	7.24	8.69	9.42	10.15
	1.22	0.16	0.27	0.37	0.47	0.57	0.67	0.81	0.88	0.94
es	54	2.08	3.35	4.63	5.91	7.19	8.47	9.74	11.02	11.87
5	1.37	0.19	0.31	0.43	0.55	0.67	0.79	0.91	1.02	1.10
in Inches	60	2.27	3.67	5.07	6.47	7.87	9.27	10.67	12.07	13.00
<u>.</u>	1.52	0.21	0.34	0.47	0.60	0.73	0.86	0.99	1.12	1.21
Height	66	2.58	4.16	5.75	7.33	8.92	10.50	12.09	13.67	14.73
ei l	1.68	0.24	0.39	0.53	0.68	0.83	0.98	1.12	1.27	1.37
<b>王</b>	72	2.77	4.48	6.19	7.89	9.60	11.31	13.01	14.72	15.86
	1.83	0.26	0.42	0.57	0.73	0.89	1.05	1.21	1.37	1.47
	78	3.08	4.97	6.86	8.75	10.64	12.54	14.43	16.32	17.58
	1.98	0.29	0.46	0.64	0.81	0.99	1.16	1.34	1.52	1.63
	84	3.27	5.29	7.30	9.31	11.33	13.34	15.36	17.37	18.71
	2.13	0.30	0.49	0.68	0.87	1.05	1.24	1.43	1.61	1.74
	90	3.57	5.77	7.97	10.17	12.37	14.57	16.77	18.97	20.44
	2.29	0.33	0.54	0.74	0.95	1.15	1.35	1.56	1.76	1.90
	96	3.77	6.09	8.41	10.74	13.06	15.38	17.70	20.02	21.57
	2.44	0.35	0.57	0.78	1.00	1.21	1.43	1.64	1.86	2.00

### 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/ft<sup>3</sup>. Tested to AMCA Fig. 5.5-6.5.

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

	Free Area %	54%
	Free Area sq. ft. (sq. m.)	8.69 (0.81)
I N T	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	990 fpm (302 m/min.)
A K E	Air Volume at 990 fpm Free Area Velocity	8,603 cfm (4060 l/s)
	Pressure Drop @990 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.

Standard 500-L.



Nailor Industries Inc. certifies that the Model 1704D shown herein is licensed to bear the AMCA Certified Ratings Program 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 Program seal applies to Water Penetration and Air Performance ratings. Louvers were tested in accordance with AMCA



SCHEDULE TYPE:	Page 2 of 2			
PROJECT:	Dii	Dimensions are in inches (mm).		
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	3 - 12 - 24	1700	12 - 1 - 10	1704D

Nailor Industries Inc. reserves the right to change any information concerning product or pricing without notice.

1704D March, 2024.



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

. HEIGHT – 1/4" (6) STD.

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:**

STANDARD CON	NSTRUCTION:				·
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.		¥   K 🛸		
BLADE SPACING:	Approx. 5 1/2" (140) on centers.			$\langle \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	•
SCREEN:	1/2" x 1/2" x 19 ga. (13 x 13 x 1.0) galvanized bird so				
	in removable frame (adds approximately 3/8" [10] to lo		WIL		
	depth).			17-114" (6) -	
FINISH:	Mill.			DTH-1/4°60 STD.	
MINIMUM SIZE:	12" wide x 12" high (305 x 305).				
	E SECTION SIZE: 60" wide x 96" high (1524 x 2438). La louvers will require field assembly of smaller sections.	arger		<b>◄</b> ─── 6" (152) — <b>Г</b>	+   _h
OPTIONS:	servere win require now assertiony of smaller sections.				
	Frame, 1 1/2" (38). <b>304</b> Type 304 S.S. Construct	tion			
-	Frame, 2" (51). <b>316</b> Type 316 S.S. Construct			<u> </u>	×
-	m Bird Screen. <b>WE</b> Welded Construction.				
	4 S.S. Bird Screen. <b>ESI</b> Extended Sill.				
BSSS Type 302		amca			
	m Insect Screen. <b>I FR2</b> 2" (51) Filter Rack.	WORLDW CERTIFIE RATINGS		ľ ,	×
	4 S.S. Insect Screen.  PACA Perimeter Anchor Clips.		/		
<b>18GA</b> 18 Gaug	-	► // •			
<b>16GA</b> 16 Gaug		PE	AIR RFORMANCE		
OPTIONAL FINIS		AIR 44			×
	oat AAMA 2603. Color:	AND CONTROL ASSOCIATION	**************************************		
	prmance Powder Coat AAMA 2604	INTERNATIONAL	. Inc.® • N		
-	Intallee Fowder Coat Anita 2004  . to 50% Kynar <sup>®</sup> ). Color:		<b>A</b>	$\mathbb{R}$	
	ymer Powder Coat AAMA 2605	Ĺ	1 1/2" 1 (38) <b></b>		← BIRD
	nt to 70% Kynar $^{\mathbb{R}}$ ). Color:				SCREEN
D PCC Prime Coa					
	H SIZING (1/4" [6.5] Undersize standard):	K		ή.	
U00 Exact Size					
U38 Undersize			/		$1 \mid$
U50 Undersize					
		OPT. FLANG		r i 🗄	
		(FL15	STD.)	<u> </u>	-
SCHEDULE TYPE:		]	Page	e 1 of 2	
PROJECT:		Di		re in inches (m	im).
ENGINEER:		DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:		3 - 12 - 24	1700	10 - 1 - 12	1706D
				1700	D March 0004

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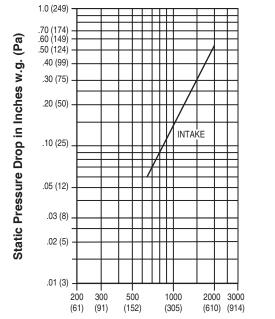


# FORMED STEEL STATIONARY LOUVER 6" (152) DEEP • DRAINABLE BLADE PERFORMANCE DATA MODEL: 1706D

### FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters								
		12	18	24	30	36	42	48	54	60
		0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
	12	0.17	0.27	0.38	0.48	0.58	0.69	0.79	0.89	0.99
	0.30	0.02	0.03	0.04	0.04	0.04	0.06	0.07	0.08	0.09
	18	0.42	0.68	0.93	1.18	1.44	1.69	1.95	2.20	2.45
	0.46	0.04	0.06	0.09	0.11	0.13	0.16	0.18	0.20	0.23
	24	0.70	1.13	1.55	1.97	2.40	2.82	3.24	3.66	4.09
	0.61	0.07	0.10	0.14	0.18	0.22	0.26	0.30	0.34	0.38
	30	1.03	1.65	2.27	2.88	3.50	4.12	4.74	5.35	5.97
	0.76	0.10	0.15	0.21	0.27	0.33	0.38	0.44	0.50	0.55
	36	1.30	2.07	2.85	3.63	4.41	5.18	5.96	6.74	7.52
S	0.91	0.12	0.19	0.26	0.34	0.41	0.48	0.55	0.63	0.70
Meters	42	1.56	2.50	3.44	4.38	5.31	6.25	7.19	8.13	9.06
Ž	1.07	0.15	0.23	0.32	0.41	0.49	0.58	0.67	0.75	0.84
and	48	1.76	2.81	3.87	4.92	5.97	7.03	8.02	9.14	10.19
	1.22	0.16	0.26	0.36	0.46	0.56	0.65	0.75	0.85	0.95
es	54	2.10	3.35	4.61	5.87	7.13	8.38	9.64	10.90	12.16
15	1.37	0.19	0.31	0.43	0.55	0.66	0.78	0.90	1.01	1.13
in Inches	60	2.36	3.78	5.20	6.62	8.03	9.45	10.87	12.29	13.70
<b>_</b> .⊑	1.52	0.22	0.35	0.48	0.61	0.75	0.88	1.01	1.14	1.27
Height i	66	2.63	4.21	5.79	7.36	8.94	10.52	12.10	13.67	15.25
ei j	1.68	0.24	0.39	0.54	0.68	0.83	0.98	1.12	1.27	1.42
<b> T</b>	72	2.90	4.63	6.37	8.11	9.85	11.59	13.32	15.06	16.80
	1.83	0.27	0.43	0.59	0.75	0.91	1.08	1.24	1.40	1.56
	78	3.16	5.06	6.96	8.86	10.76	12.65	14.55	16.45	18.35
	1.98	0.29	0.47	0.65	0.82	1.00	1.18	1.35	1.53	1.70
	84	3.43	5.49	7.55	9.60	11.66	13.72	15.78	17.83	19.89
	2.13	0.32	0.51	0.70	0.89	1.08	1.27	1.47	1.66	1.85
	90	3.70	5.92	8.13	10.35	12.57	14.79	17.01	19.22	21.44
	2.29	0.34	0.55	0.76	0.96	1.17	1.37	1.58	1.79	1.99
	96	3.96	6.34	8.72	11.10	13.47	15.85	18.23	20.61	22.99
	2.44	0.37	0.59	0.81	1.03	1.25	1.47	1.69	1.91	2.14

### 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/ft<sup>3</sup>. Tested to AMCA Fig. 5.5-6.5.

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

	Free Area %	50%
	Free Area sq. ft. (sq. m.)	8.02 (0.75)
I N T	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1087 fpm (331 m/min.)
A K E	Air Volume at 1087 fpm Free Area Velocity	8,718 cfm (4144 l/s)
	Pressure Drop @1087 fpm	.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.



Nailor Industries Inc. certifies that the Model 1706D shown herein is licensed to bear the AMCA Certified Ratings Program 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 Program seal applies to Water Penetration and Air Performance ratings.

Louvers were tested in accordance with AMCA Standard 500-L.



SCHEDULE TYPE:	Page 2 of 2			
PROJECT:	Dimensions are in inches (mm).			ım).
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	3 - 12 - 24	1700	10 - 1 - 12	1706D

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1706D March, 2024.



# **Nailor** Industries Inc. Louver Finishes & Color Guide

Slate Blue	LF01	Medium Bronze	LF02	Sandstone	LF03
Light Gray	LF04	Charcoal	LF05	Bone White	LF06
Western Tan	LF07	Architectural Bror	ze <b>LF08</b>	Regal Blue	LF09
Forest Green	LF10	Surrey Beige	LF11	Royal Brown	LF12
Barn Red	LF13	Burgundy	LF14	Clay	LF15
Almond	LF16	Coastal White	LF17	Vista Green	LF18
Black	LF19	Gloss Black	LF20	Campus Green	LF21

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 <sup>®</sup> 5000, Coraflon <sup>®</sup> Powder, Interpon <sup>®</sup> D3000-Fluoromax, IFS 500FP)	"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.	10 years (Consult Nailo for availability of extended warranty)
	A superior alternative to traditional 70% Kynar 500 $^{\mbox{\tiny B}}$ / Hylar 500 $^{\mbox{\tiny B}}$ PVDF fluoropolymer liquid coatings.	
High Performance Powder Coat AAMA 2604 - High Performance Finish (AKA: Powdura <sup>®</sup> 4000, Envirocron <sup>®</sup> Ultra Durable Powder, Dynadure <sup>™</sup> 400, Interpon <sup>®</sup> D2000, IFS 400SD)	"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 <sup>®</sup> / Hylar 5000 <sup>®</sup> liquid coatings.	5 years
Durable Powder Coat AAMA 2603 - Pigmented Organic Coatings (AKA: Powdura <sup>®</sup> 3000, Envirocron <sup>®</sup> Durable Powder, Dynadure <sup>™</sup> 300, Interpon <sup>®</sup> D1000, IFS 300SP)	<b>"Good"</b> - 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
<b>Clear Anodize 215-R1</b> 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
<b>Clear Anodize 204-R1</b> 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

Interpor<sup>®</sup> is a registered trademark of Akzo Nobel Powder Coatings Ltd.

Kynar 500<sup>®</sup> is a registered trademark of Arkema, Inc.

Hylar 5000<sup>®</sup> is a registered trademark of Solvay Solexis, Inc.

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9-16-22

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# INSTALLATION INSTRUCTIONS STEEL LOUVERS STATIONARY & OPERABLE MODEL SERIES: 1700

### I. General

- 1. The following guidelines provide basic assembly and installation instructions for standard Nailor formed steel stationary blade and operable louvers. Nailor standard louvers are designed to resist a 25 psf wind load.
- 2. Consult with the Engineer of record for the size, type, and quantity of anchors required to secure the louver to the surrounding condition.
- 3. Refer to job-specific submittal drawings for additional details when provided.
- 4. Carefully lift louver sections by their frames or support members using multiple lifting points if necessary to avoid distortion, racking or damage. **WARNING:** Do not apply excessive force to a single point and never lift units by louver blades, linkage, or actuator. Take necessary precautions to prevent damaging the louver finish.
- 5. Caulk and anchors are by others.

### II. Receiving

Upon delivery, inspect shipping containers and contents closely. If containers are damaged, contents may also be damaged. Note any damage on freight carrier's delivery receipt. Contact the freight company within 24 hours to initiate a claim and schedule an inspection. All products ship F.O.B Nailor plant and the receiver of the shipment is responsible for filing freight claims with the freight company

### III. Storage

Store louvers in a cool, dry, and safe location in an orderly manner away from construction sites, warehouse traffic, other materials, etc. to prevent damage. Do not expose louvers to excessive heat. Cover with plastic sheeting to protect from excessive moisture, dirt, and debris.

### **IV. Preparation**

1. Louvers and Hardware

- a. Locate all crates, boxes, cartons, etc.
- b. Remove louvers from packaging, inspect for damage, confirm quantities and sizes with packing list, and organize parts in order of installation. If installation hardware or Extended Sills were ordered they will typically be shipped loose.
- c. Notify your Nailor sales representative immediately of any shortages should they occur.
- 2. Openings
  - a. Inspect openings for damage, repair as needed, and remove obstructions and debris as required.
  - b. Verify that openings are square, plumb, and that the louvers will fit properly prior to installation.

### V. Single Section Louver Installation

- 1. Locate Extended Sills, if applicable. (Optional by Nailor). Ensure the sill of the opening and the underside of the Extended Sill is free from debris.
- 2. Apply caulk to the opening and firmly set the Extended Sill in place. (Caulk by others).
- 3. Locate and anchor clip angles 1.5" x 1.5" x 12 gauge x 2" long (38 x 38 x 2.75 x 51) as required to establish proper louver depth and position. See Fig. 2.1 for required spacing for stationary and operable louvers. (Clip angles are by others or optional by Nailor).
- 4. Place the louver section into the opening. See Fig. 2.2, 2.3 (stationary only), 2.4 and 2.5.
- 5. Shim around the perimeter of the louver to maintain the proper sealant joint clearance and to level the louver. (Shims are by others).
- 6. When the louver is level and in the proper position, fasten louver frame to clip angles with (2) minimum #10 s.m. screws. (Fasteners are by others).
- 7. Install backer rod and caulk around the entire perimeter of the louver, as required. (Backer rod and caulk are by others). **WARNING:** Do not caulk between louver and sill flashing to allow for drainage.

### VI. Multiple Section Louver Installation

- 1. Locate Extended Sills, if applicable. (Optional by Nailor). Ensure the sill of the opening and the underside of the Extended Sill is free from dirt and debris.
- 2. Apply caulk to the opening and firmly set the Extended Sill in place. (Caulk by others).
- 3. Locate and anchor clip angles as required to establish proper louver depth and position. See Fig. 2.1 for required spacing. (Clip angles are by others or optional by Nailor).
- 4. If single section high/multiple sections wide, install the left section first (as viewed from the exterior) following steps 4-6 above in Section V. If multiple sections high, install the upper left section(s) first. Install remaining sections from left to right, across the top, and then install bottom louvers from left to right, across the bottom.
- 5. Install Universal Splice Angle (USA) to jamb at horizontal mullion and, if required, install Hidden Blade Support Angle Splice where required. See Fig. 2.2, and if required, 2.3.
- 6. For visible mullions, install mullion cover on right hand jamb (as viewed from the exterior). See figure 2.4.
- 7. Install backer rod and caulk around the entire perimeter of the louver, as required. (Backer rod and caulk are by others). **WARNING:** Do not caulk between louver and sill flashing to allow for drainage.
- 8. WARNING: Do not apply excessive force to a single point and never lift units by louver blades, support angles, or splices.

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### **VII. Actuator Connection**

- 1. All electrical and pneumatic connections should be done in accordance with local code requirements and actuator installation documentation. Before you apply power to the actuator, verify power requirements. After appropriate power has been connected to the actuator, cycle the louver to ensure proper operation.
- 2. Refer to job-specific submittal drawings for additional details when provided.

### VIII. Protecting and repairing the finish

Today's high quality painted finishes are extremely durable and despite this fact, even the best finishes require maintenance. Even with the most careful treatment of louvers during shipment, installation, and daily use, occasional damage may occur.

- 1. Care & Cleaning: Powder Coat Finishes
  - a. When selecting a cleaning solution, use mild soap solutions that are safe for use with your bare hands and are not caustic or corrosive. Avoid the use of strong acid or alkali cleaners as they may damage the finish.
  - b. Solvents equivalent to denatured alcohol or mineral spirits may be used to remove sealants, grease, or other materials. Never mix cleaners and/ or solvents as the resultant mixture can cause harmful results.
  - c. Do not use abrasive cleaners or abrasive materials (i.e. steel wool, steel brushes, etc.) which can also harm the finish.
  - d. Once sealant, grease, or other materials are removed, the mild soap solution can be applied with a soft sponge, cloth, or brush.
  - e. Rinse the surface thoroughly with clean water and let air dry.

After installation of your louver, field touch up work (by others) may be required to remedy any damages during shipping, handling, or installation.

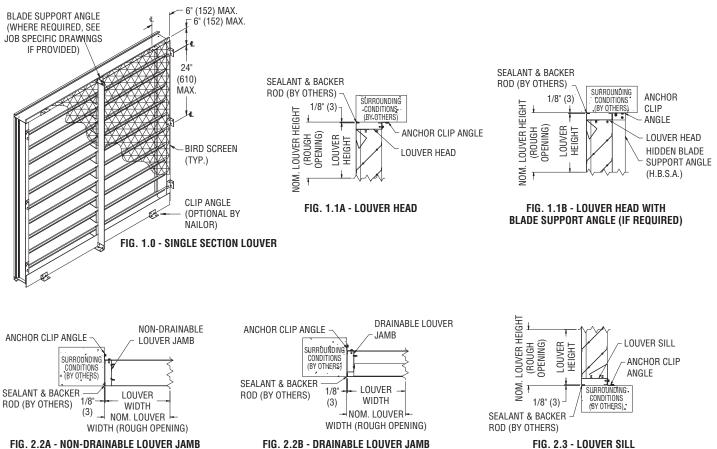
- 2. Field Touch Up
  - a. Minor painted surface damage can be sanded prior to touchup painting with excellent results. For superficial scratches and gouges, use a relatively course grit sandpaper to remove the damage, then use progressively finer grit paper to remove the sanding marks, finishing with a 180 to 220 grit paper.
  - b. Touchup paint can be ordered by contacting your Nailor representative. It is intended to cover up small blemishes or to touchup exposed ends on fabricated parts. The color will closely match the factory applied painted or anodized finish, however the touchup finish will not be as durable as the original finish.

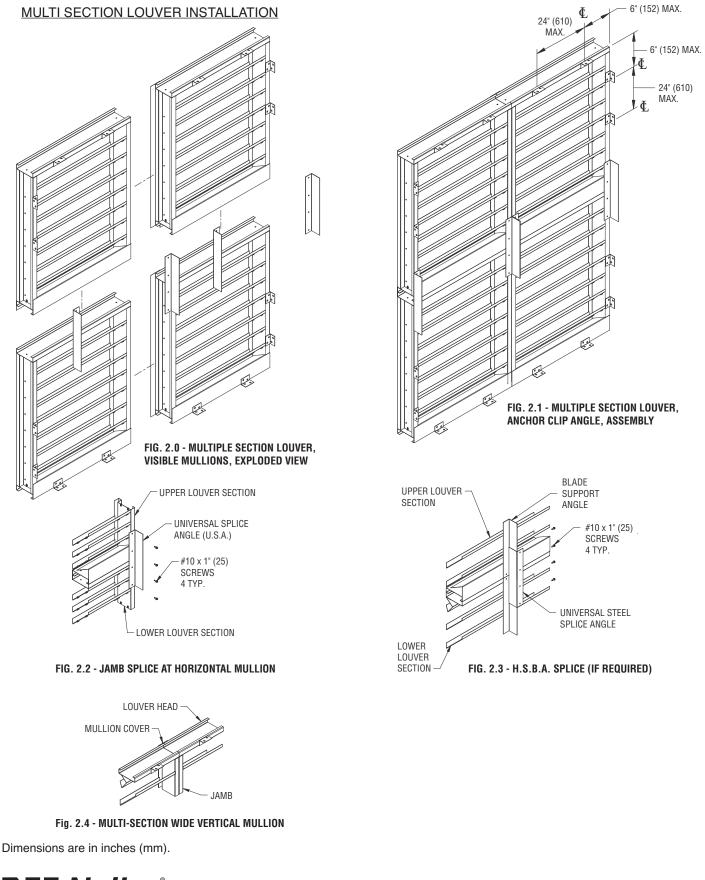
### IX. Adjustable Louver and Combination Louver/Damper Maintenance

All adjustable louvers and combination louver/dampers should be checked and serviced on a regular schedule. Inspection intervals depend on system usage and atmospheric conditions within the system.

- 1. All louvers and dampers should be checked for freedom of movement. Shafts, bearings, pivot points, etc. should be cleaned and lubricated with a light spray oil. Any and all access should be removed.
- 2. Blades should be checked in the closed position to insure tight closure. Adjustments should be made at linkage to correct any misalignment.
- 3. Motors (Optional by Nailor or by others), where applicable, should be visually checked through their complete cycle for defects, binding or misalignment. Operator anchorage and fittings should also be checked.
- 4. Blades should be checked for freedom of movement. Blades should be disconnected from their operators and manually checked (Blades should move freely with no binding or twisting).
- 5. Pins, straps and bushings should be checked for wear, corrosion or rust. Replace or paint (by others) as required.
- 6. Check louver or damper blade edge and jamb seals (where applicable).
- 7. Check all linkage, connecting bars and operator connections for proper alignment and fit.
- 8. Check overall installation to insure that louver or damper was installed in a perfectly plumb and square position and proper clearance was allowed for blade linkage and operator movement.

### SINGLE SECTION LOUVER INSTALLATION







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