

Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
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Date: 1/17/2024

Return Request: 1/27/2024

Project: Academies of Math & Science Little Rock

Supplier: Dollar Sheet Metal

Manufacturer: Various

Submittal: Louvers

Submittal Number: 23 00 00-12

Drawing # and Installation: Mechanical Drawings

ARCHITECT

Lewis Architects Engineers
11225 Huron Lane, Suite 104
Little Rock, AR 72211
501-223-9302

ENGINEER

Lewis Architects Engineers
11225 Huron Lane, Suite 104
Little Rock, AR 72211
501-223-9302

GENERAL CONTRACTOR

Clark Contractors
15825 Cantrell Rd.
Little Rock, AR 72223
501-223-9302

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

CSUSA PROJECT NO.

23-1028

jon@comfortar.com

9924 Landers Rd.
No. Little Rock, AR 72117

EACC-601 6 in. Frame, Concealed Actuator

APPLICATION & DESIGN

EACC-601 is a combination louver/damper designed to protect air intake and exhaust openings in building exterior walls that, at times, require tight air shut off. Design incorporates a drainable head member, drainable stationary blades, operable blades and a concealed actuator within the louver sill. When the operable blades are open, airflow is permitted through the louver, when the blades are closed, a tight seal is created to prevent the passage of air.

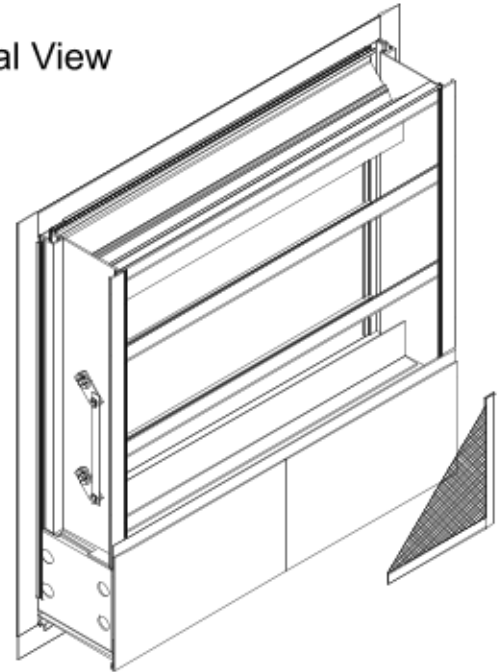
PRODUCT DETAILS

Frame:	6 in. x 0.125 in. Frame Thickness
Frame Type:	Flanged, 1.5 in., Exterior
Blades:	0.081 in. Adjustable Blade Thickness
Material:	Aluminum
Sizing:	1/4 Inch Under
Blade Seal:	Yes
Jamb Seal:	Yes
Axle Bearings:	Synthetic
Axle Material:	Steel
Shape:	Rectangular
Construction:	Mechanically Fastened

OPTIONS & ACCESSORIES

Finish:	Painted
Finish Performance:	AAMA 2605
Coating Type:	2Ct 70%Kynar/100%Fluoropolymer
Color:	Standard TBS
Bird Screen:	0.75 in. x 0.05 in., Flat Expanded Aluminum, External, Match Louver Finish
Insect Screen:	Aluminum, Internal, Mill Finish
Actuator:	120 VAC, Mounting: In Airstream, Failure Pos.: Closed, Operating Mode: Two Position, Nema Enclosure: 1, Transformer: None, Aux. Switches: Yes, Access: Internal
Union Label:	No Preference
Warranty:	1 year Standard Product Warranty 10 year Standard Finish Warranty

Internal View



SUMMARY

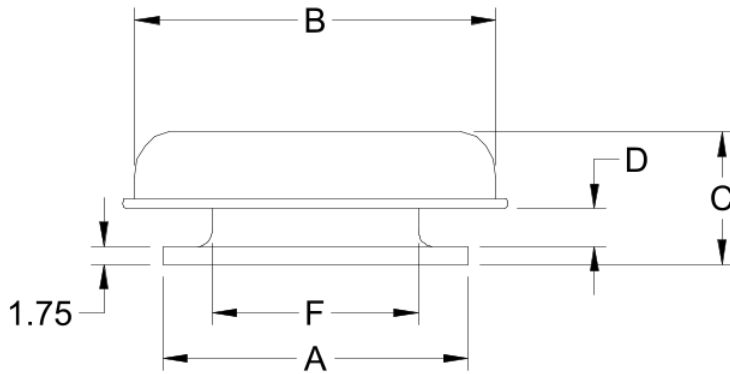
ID #	TAG	QTY	W (in.)	H (in.)	FREE AREA (ft2)	FREE AREA (%)	DRIVE ARR.	ACTUATOR MODEL	ACTUATOR LOCATION	SECT. WIDE	SECT. HIGH	SECT. SHIP	ACT./SHIP SECT.
2-1		3	48	60	8.72	44	11-1FIBL-0	AFBUP-S	Left Bottom	1	1	3	1
2-2		3	60	48	7.84	39.6	11-1FIBL-0	AFBUP-S	Left Bottom	1	1	3	1

*** Louver requires actuator to operate. When no actuator is selected, no actuator mounting brackets, linkage, jackshafts, or hardware will be provided.**

Total Louver Qty:	6	Total Weight (lb):	506	Louver Area (ft2):	120
Total Ship Sect.:	6				

**Weight shown is an estimate only based on the default base product configuration without options or accessories.

Larger openings may require field assembly of multiple louver panels to make up the overall opening size. Individual louver panels are designed to withstand windloads up to a maximum of 25 PSF (size and configuration dependent). Design, materials and installation of structural reinforcement required to adequately support large sections or multiple section assemblies within a large opening are not provided by Greenheck. Options and accessories including, but not limited to, screens, filter racks, louver doors, and blankoff panels are not subject to structural analysis unless indicated otherwise by Greenheck. Unless specifically indicated, the following are NOT included in the quote provided: structural steel, installation hardware (anchors, angle clips, continuous angles, shims, fasteners, inserts, backer rod and sealant), field measuring and/or installation, miscellaneous flashing, trim or enclosures, blank off panels, mullion covers or mullion hardware, hinged frames or removable subframes, custom bird/insect screen, 3-coat, metallic and/or exotic paint finishes, bituminous paints for unlike metals, any applicable taxes, stamped and sealed structural calculations seismic calculations or job specific engineered submittal drawings.



Model: GRSR

Standard Construction Features:

- Aluminum housing.
- Aluminum curb cap with prepunched mounting holes.
- Recommended roof opening dimension is at least 2.5 in. larger than the damper size.

Dimensions

ID#	Tag	Qty	Model	Model Size (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Curb Cap Width (in.)	Curb Cap Length (in.)	Weight (lb)
4-1		2	GRSR-20	20	30	35.5	13	3.75	N/A	20.25	30	30	24

Construction

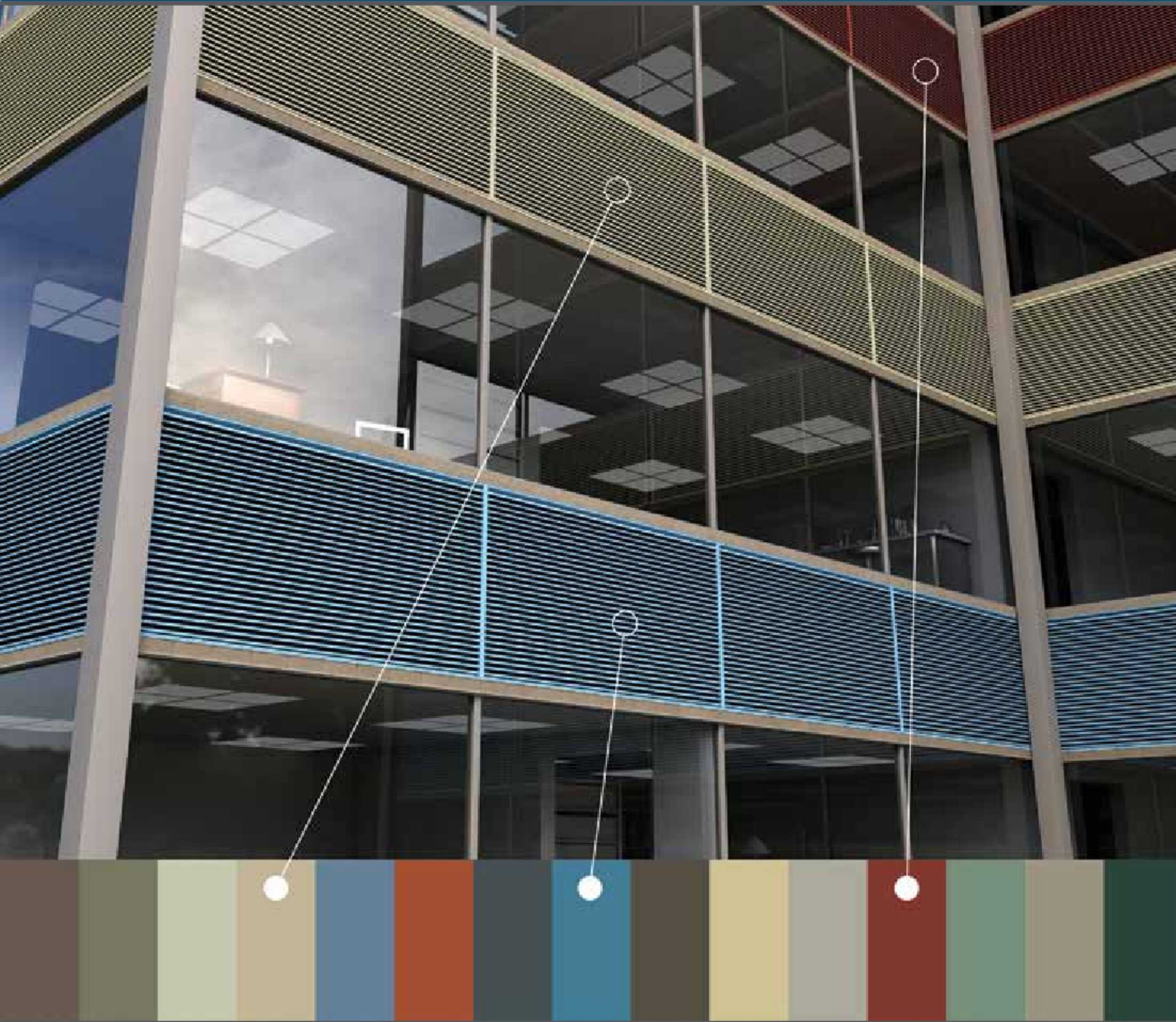
ID#	Flashing Flange	Installation Type	Insect Screen	Birdscreen Material	Unit Material
4-1	No	Non-Ducted	No	Galvanized	Aluminum

Accessories

ID#	Hinged Curb Cap	Curb Seal	Hood Insulation (in.)	Tie Down Points
4-1	No	No	None	No

Disclaimer: This color chart is for reference only and is not to be used for final color matching. Shades may vary due to the color and resolution of your computer screen and/or your particular color printer output. Greenheck is not responsible or liable for color matches made with online color chart.

Louver Finishes & Colors



BUILDING VALUE IN AIR.



April
2020

Standard Colors

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Greenheck offers 27 standard colors available in AAMA 2605 compliant coatings (70% Kynar PVDF/ 100% Fluoropolymer FEVE), AAMA 2604 compliant coatings (50% Kynar/Acroflur) or AAMA 2603 compliant coatings (Baked Enamel).

		
Bone White GF102	Ivory 031	Ascot White GF120
		
Dover White AL202	Cambridge White GF110	Herring Bone GF107
		
Sandstone GF112	Pueblo Tan GF116	Rawhide AL215
		
Smoke GF104	Sierra Tan GF118	Lindie Bronze AL218
		
Hampton Brown GF105	Spartan Bronze GF113	Classic Bronze GF108
		
Statuary Bronze AL221	Dove Gray AL213	Stone Gray GF103
		
Charcoal AL214	Flat Black 044	Gloss Black 045
		
Coronado Red GF121	Terra Cotta AL217	Hartford Green AL208
		
Capri Blue GF106	Aegean Blue AL204	Patina Green GF114

The samples incorporated in this presentation are as close to production materials as color reproduction technology allows. Color samples of metal coupons are available upon request. Custom color matching is available upon request. Consult your Greenheck representative for additional cost associated with custom colors.

Mica Colors

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Greenheck offers six standard mica colors available in AAMA 2605 compliant coatings (70% Kynar PVDF/100% Fluoropolymer FEVE). Mica colors are formulated to reproduce the low-gloss metallic luster of anodized aluminum in a wider range of dynamic colors. These colors offer many performance advantages over conventional anodized finishes including longer warranty duration, superior resistance to salt spray, greater color uniformity and better chemical resistance. Additionally, mica coatings are easier to repair and touch-up than conventional anodized finishes. Organic micas are comprised of natural minerals and crushed pearlescent that are highly resistant to harmful environmental effects.



Clear Anodize Mica

GF209



Bright Silver

AL222



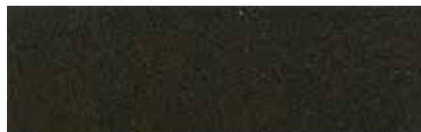
Sterling

GF201



Gun Barrel

AL239



Dark Bronze

AL238



Asti

AL236



Other Options

Mill Aluminum

Aluminum in the mill finish state will be commercially smooth and substantially free from blisters, inclusions, voids, slivers and kinks. Slight discontinuity resulting from flow and die lines inherent in the extrusion process will exist. Occasional discontinuities that can be reasonably removed making the surface suitable for finishing operations are acceptable. Although aluminum is naturally resistant to corrosion, its appearance changes as a result of weathering and aging. Aluminum in the mill finish state may also have a non-uniform surface appearance resulting from oil, heat and oxide discoloration inherent in the manufacturing process.

Prime Coat

Louvers and architectural products shall be cleaned, pre-treated and receive a prime coat finish suitable for field painting. Products must be thoroughly cleaned and prepared prior to field application of epoxy, urethane or other heavy-duty coatings. Greenheck does not recommend prime coat or field painting of louvers and architectural products. As such, Greenheck does not provide formal field cleaning, preparation or painting instructions or recommendations.

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Anodize Colors

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The anodize process creates an extremely hard and durable finish on aluminum surfaces. Greenheck offers seven industry standard anodize colors on aluminum louver products that meet the performance requirements of AAMA 611. Some degree of color discontinuity within industry standard anodize color range tolerances can be expected. For better color consistency Greenheck recommends AAMA 2605 compliant mica coatings in lieu of anodize.



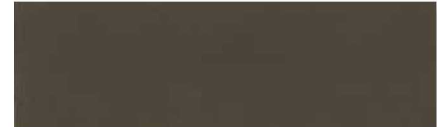
Clear Anodize 215-R1 or 204-R1



Champagne Anodize



Light Bronze Anodize



Medium Bronze Anodize



Dark Bronze Anodize



Extra Dark Bronze Anodize



Black Anodize

Aluminum Association Specification

Anodize	AA-M10C21A44	AA-M10C21A41	AA-M10C21A31
Class	I	I	II
Minimum Mil Thickness	0.7	0.7	0.4
Greenheck Louver Anodize Finish Options	Champagne; Light, Medium, Dark or Extra Dark Bronze; Black	215-R1 Clear	204-R1 Clear
Description	Two-step anodize process incorporating a colorfast electrolytic process following the initial anodize step	Clear, colorless and hard oxide aluminum finish that resists weathering and chemical attack	Clear, colorless and hard oxide aluminum finish that resists weathering and chemical attack
Warranty	5 Year	5 Year	1 Year



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Paint Performance Specifications

Use the reference chart below to better understand the performance criteria defined by the American Architectural Manufacturers Association (AAMA). To ensure the highest performance coatings on louver products, Greenheck recommends specifying an AAMA 2605 compliant coating.

Paint Performance Specifications			
Coatings	100% Fluoropolymer (FEVE) 2-Coat 70% Kynar® (PVDF) 3-Coat 70% Kynar® (PVDF) 4-Coat 70% Kynar® (PVDF)	50% Kynar® / Acroflur®	Baked Enamel
Warranty (Aluminum Products Only)	10 Year (20 Year Optional)	5 Year	1 Year
Weathering	AAMA 2605	AAMA 2604	AAMA 2603
South Florida Exposure	10 Year	5 Year	1 Year
Color Retention	Delta E Color Change <=5 Hunter Units	Delta E Color Change <=5 Hunter Units	Slight Fade
Gloss Retention	Minimum 50%	Minimum 30%	N/A
Chalk Resistance	=>8 Rating (6 for Whites)	=>8 Rating	Slight Chalking
Erosion Resistance	<10% Film Loss	<10% Film Loss	N/A
Chemical Tests			
Muriatic Acid Resistance (15 Minute Spot Test)	No Blistering or Visual Change	No Blistering or Visual Change	No Blistering or Visual Change
Mortar Resistance (24 Hour Pat Test)	No Loss of Film Adhesion or Visual Change	No Loss of Film Adhesion or Visual Change	No Loss of Film Adhesion or Visual Change
Nitric Acid Resistance	Delta E Color Change <=5 Hunter Units	Delta E Color Change <=5 Hunter Units	N/A
Detergent Resistance	No Loss of Adhesion, No Blistering, No Significant Visual Change	No Loss of Adhesion, No Blistering, No Significant Visual Change	No Loss of Adhesion, No Blistering, No Significant Visual Change
Window Cleaner Resistance	No Blistering or Noticeable Change and No Removal of Film	No Blistering or Noticeable Change and No Removal of Film	N/A
Corrosion			
Salt Spray Resistance (ASTM B117)	4,000 Hours, => 7 Scribe, => 8 Blister	3,000 Hours, => 7 Scribe, => 8 Blister	1,500 Hours, => 7 Scribe, => 8 Blister
Aggressive Salt Spray Resistance (ASTM G85, Annex A5)	2,000 Hours Aggressive Cyclical Corrosion Testing	N/A	N/A
Humidity Resistance	4,000 Hours at 100°F and 100% Humidity, No Visual Change and Few Blisters Size 8	3,000 Hours at 100°F and 100% Humidity, No Visual Change and Few Blisters Size 8	1,500 Hours at 100°F and 100% Humidity, No Visual Change and Few Blisters Size 8
Hardness & Adhesion			
Dry Film Hardness	F Minimum Hardness. No Film Rupture.	F Minimum Hardness. No Film Rupture.	H Minimum Hardness. No Film Rupture.
Film Adhesion	Accordance with ASTM D3359	Accordance with ASTM D3359	Accordance with ASTM D3359
Impact Resistance	No Removal of Film from Substrate	No Removal of Film from Substrate	No Removal of Film from Substrate
Abrasion Resistance	Co-efficient Value 40 Minimum	Co-efficient Value 20 Minimum	N/A

Complete Louver Product Offering

- Stationary
- Adjustable
- Combination Louver/Dampers
- Wind Driven Rain
- Hurricane Rated
- Acoustical
- Louvered Penthouses
- Thinline



Our Commitment

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Specific Greenheck product warranties are located on greenheck.com within the product area tabs and in the Library under Warranties.

