

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

Arrow United Industries a division of Mestek, Inc. 450 Riverside Drive Wyalusing, PA 18853

SCOPE: This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Model EAV-66 6" Aluminum Louver System

APPROVAL DOCUMENT: Drawing No. **1504,** titled "EAV-66 Vertical Louver System", sheets 1 through 9 of 9, dated 10/18/2006, with last revision C dated 08/01/2016, prepared by W. W. Schaefer Engineering and consulting, P.A., signed and sealed, by Warren W. Schaefer, P.E. on 12/17/2021, bearing the Miami-Dade County Product Control renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA # 20-0622.12 and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

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The submitted documentation was reviewed by Carlos M. Utrera, P.E.

MIAMI-DADE COUNTY
APPROVED

NOA No. 21-1228.08 Expiration Date: March 15, 2027 Approval Date: February 10, 2022

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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOAS

A. DRAWINGS "Submitted under NOA #16-0808.13"

Drawing No. **1504**, titled "EAV-66 Vertical Louver System", sheets 1 through 9 of 9, dated 10/18/2006, with last revision C dated 08/01/2016, prepared by W. W. Schaefer Engineering and consulting, P.A., signed and sealed, by Warren W. Schaefer, P.E.

B. TESTS "Submitted under NOA # 08-0904.01"

- 1. Test report on Large Missile Test (Level E) and on Cyclic Load Test per ASTM 1886/1996 of an EAV-66 Aluminum Louver System, prepared by Hurricane Test Laboratories LLC., Test Report No. 0198-0109-07, dated 03/08/2007, signed and sealed by Vinu J. Abraham, P.E.
- 2. Test report on Wind Driven Rain Test per TAS 100(A) of an EAV-66 Aluminum Louver with AFD-20 Damper, prepared by PRI Construction Materials Technologies, LLC, Test Report No. **AWV-006-02-01**, dated 02/07/2008, signed and sealed by Duc T. Nguyen, P.E.
- 3. Test report on Wind Driven Rain Test per TAS 100(A) of an EAV-66 Aluminum Louver with AC-525, prepared by PRI Construction Materials Technologies, LLC, Test Report No. AWV/AUI-006-02-01, dated 02/14/2008, signed and sealed by Duc T. Nguyen, P.E.

"Submitted under NOA # 06-1211.03"

4. Test report on Large Missile Impact Test per FBC, TAS 201, Cyclic Wind Pressure Test per FBC, TAS 203 and Uniform Static Air Pressure Test per FBC, TAS 202 of an EAV-66 Aluminum Louver System, prepared by Hurricane Test Laboratories, LLC, Report No. 0198-0712-06, dated 11/07/2006, signed and sealed by Vinu J. Abraham, P.E.

C. CALCULATIONS "Submitted under NOA #16-0808.13"

1. Anchor calculations prepared by W.W. Schaefer Engineering and Consulting P.A., dated 08/01/2016, signed and sealed by Warren W. Schaefer, P.E.

"Submitted under NOA # 11-1115. 02"

2. Anchor calculations prepared by W.W. Schaefer Engineering and Consulting P.A., dated 11/07/2011, signed and sealed by Warren W. Schaefer, P.E.

"Submitted under NOA # 08-0904.01"

3. Anchorage, stress and deflection calculations of the Louver System with AFD-20 Dampers, sheets 1 through 4 of 4 and with AC-525/526 Dampers, sheets 1 and 2 of 2, both dated 07/22/2008, prepared by W.W. Schaefer Engineering and Consulting P.A., signed and sealed by Warren W. Schaefer, P.E.

"Submitted under NOA # 06-1211.03"

4. Anchorage calculations, 13 pages for Arrow United Industries, **Model EAV-66** Vertical Louver, prepared by W.W. Schaefer Engineering and Consulting P.A., signed and sealed on 11/07/2006 by Warren W. Schaefer, P.E.

D. **OUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 21-1228.08
Expiration Date: March 15, 2027
Approval Date: February 10, 2022

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

- E. MATERIAL CERTIFICATIONS
 - 1. None.
- F. STATEMENTS "Submitted under NOA #16-0808.13"
 - Statement letter of code conformance to the 5th edition (2014) FBC issued by W.W. Schaefer Engineering and Consulting P.A., dated 08/01/2016, signed and sealed by Warren W. Schaefer, P.E.
 - 2. Statement letter of no financial interest issued by W.W. Schaefer Engineering and Consulting P.A., dated 08/01/2016, signed and sealed by Warren W. Schaefer, P.E.
- 2. EVIDENCE SUMBITTED UNDER NOA # 20-0622.12
- A. DRAWINGS
 - 1. None.
- B. TESTS
 - 1. None.
- C. CALCULATIONS
 - 1. None.
- D. QUALITY ASSURANCE
 - 1. None.
- E. MATERIAL CERTIFICATIONS
 - 1. None.
- F. STATEMENTS
 - 1. Statement letter of code conformance to the 6th Edition (2017) and 7th Edition (2020) FBC issued by W. W. Schaefer Engineering & Consulting, P.A., dated 06/03/2020, signed and sealed by Warren W. Schaefer, P.E.

Carlos M. Utrera, P.E.
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3. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **1504**, titled "EAV-66 Vertical Louver System", sheets 1 through 9 of 9, dated 10/18/2006, with last revision C dated 08/01/2016, prepared by W. W. Schaefer Engineering and consulting, P.A., signed and sealed, by Warren W. Schaefer, P.E. on 12/17/2021.

B. TESTS

- 1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 2) Large Missile Impact Test per FBC, TAS 201-94 (Level E, 80 fps)
 - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with installation diagram of Model EAV-66 Aluminum Louvers, prepared by Intertek, Test Report No. **M9248.01-109-18**, dated 12/14/2021, signed and sealed by Vinu J. Abraham, P.E.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

- 1. Statement letter of code conformance to the 7th Edition (2020) of the FBC, issued by W. W. Schaefer Engineering & Consulting, P.A., dated 12/17/2021, signed and sealed by Warren W. Schaefer, P.E.
- 2. Statement letter of no financial interest issued by W.W. Schaefer Engineering and Consulting P.A., dated 12/17/2021, signed and sealed by Warren W. Schaefer, P.E.

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GENERAL NOTES:

1. THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN

IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".

2 OPENINGS BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED.

2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS

3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS

- SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.

 4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR
- CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT PRODUCTS.
- 5. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
- 6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.

 7. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BLICKS.
- 7. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
- 8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF Kd = 0.85 MAY BE APPLIED PER THE ASCE-7 STANDARD.
- 9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR Cd = 1.6 WAS USED FOR WOOD SCREW ANALYSIS ONLY.
- 10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
- 11. EACH LOUVER ASSEMBLY SHALL BE PERMANENTLY LABELED AS FOLLOWS: "ARROW UNITED INDUSTRIES, WYALUSING,
- PA, MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED".
- 12. ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
- 13. ALL WOOD SUBSTRATE SHALL BE MIN. G = 0.55 DENSITY.
- 14. ALL METAL STUD SUBSTRATE SHALL BE MIN. 16 GA. 50 KSI STUDS.
- 15. ALL STRUCTURAL STEEL SUBSTRATE SHALL BE MIN. 12 GAGE Fy = 36 KSI.
- 16. INDIVIDUAL PANEL WIDTHS ARE UNLIMITED IN DIMENSION. PANEL HEIGHTS ARE LIMITED BY THE DIMENSIONS SHOWN IN THE ELEVATIONS.
- 17. INDIVIDUAL PANELS MAY BE STACKED HORIZONTALLY IN AN UNLIMITED QUANTITY. IT IS THE RESPONSIBILITY OF THE SUPPORTING STRUCTURES DESIGN ENGINEER/ARCHITECT TO INSURE THE SUPPORTING STRUCTURE WILL SUPPORT ALL DESIGN LOADS TRANSFERED BY THE LOUVERS.
- 18. THESE LOUVERS HAVE PASSED TESTING IN ACCORDANCE WITH ASTM E1886 & E1996 FOR ESSENTIAL FACILITIES LEVEL "E" 80 FT/S LARGE MISSILE IMPACT SPEED. THEREFORE, THESE LOUVER SYSTEMS ARE APPROVED FOR USE WITH ESSENTIAL FACILITIES.
- 19. THIS SYSTEM HAS BEEN TESTED FOR WATER INFILTRATION RESISTANCE AND IS A WATER RESISTANT SYSTEM WHEN AN AFD-20 OR AC525/526 DAMPER IS INSTALLED WITH THE LOUVER PANEL.
- 20. UNLESS THE AFD-20 OR AC525/526 DAMPER IS ATTACHED TO THE LOUVER, THE LOUVER IS TO BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, AND THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS OR SUPPLIES.

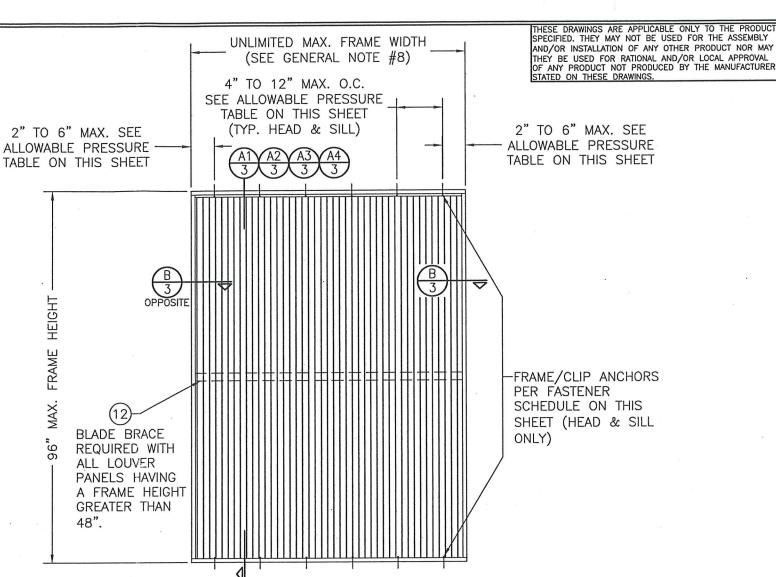
CORNER & BLADE END CONSTRUCTION

SILL WITH TWO 1/4" X 1" SELF TAPPING SCREWS.

BLADE TO HEAD & SILL:
BLADE END IS SQUARE CUT, BUTTED AND JOINED TO HEAD AND
SILL WITH TWO NO. 8 X 1" S.S. SMS SCREWS PER BLADE END.
HEAD & SILL TO JAMB:
SIDE JAMB IS SQUARE CUT, BUTTED AND JOINED TO HEAD AND

FASTENER SCHEDULE				
ANCHOR TYPE	(4) SUBSTRATE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.	
(3)NO. 10 S.S. SCREW	WOOD	1 1/4"	3/4"	
(5) NO. 10-16 SELF TAPPING/DRILLING SCREW	METAL STUD	FULL	3/4"	
(1)1/4" CONCRETE SCREW	CONCRETE	1 1/2"	2"	
(2) 1/4" BOLT	STEEL OR METAL STUD	FULL	3/4"	
(5)1/4-20 OR 1/4-14 SELF TAPPING/DRILLING SCREW	STEEL	FULL	3/4"	

- (1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.).
- (2) BOLT SHALL BE MIN. A307 GALVANIZED OR 304 S.S. (Fv = 10,000 PSI MIN.)
- (3) SMS WOOD SCREWS SHALL HAVE MIN. YIELD STRENGTH OF Fyb = 80,000 PSI
- (4) SEE GENERAL NOTES FOR SUBSTRATE REQUIREMENTS.
- (5) SELF TAPPING SCREWS SHALL BE CORROSION RESISTANT MIN. SAE GRADE 2 STEEL OR MIN. ALLOY GROUP 1, 2 & 3 CONDITION "A" STAINLESS STEEL.



EXTERIOR ELEVATION
SINGLE LOUVER PANEL
(ARCHITECTURAL & NON-ARCHITECTURAL)

SCALE: 1/2" = 1'-0"

(2) ALLOWABLE DESIGN PRESSURE & ANCHOR SPACING REQUIREMENTS (LOUVER PANELS)

(1) MAX. ANCHOR SPACING	(1) MAX. ANCHOR END DISTANCE	ALLOWABLE PRESSURE	
4"	2"	+/-150 PSF	
8"	4"	+/-75 PSF	
12"	6"	+/-50 PSF	

- (1) WHEN LOUVERS ARE USED TO PROTECT ESSENTIAL FACILITIES, MAX. ANCHOR SPACING SHALL NOT EXCEED 4" & MAX. ANCHOR END DISTANCE SHALL NOT EXCEED 2" REGARDLESS OF PRESSURE REQUIRED.
- (2) FOR ALLOWABLE PRESSURE ON DAMPERS, SEE SHEET 5 OR 7.

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 21-1228.08

Expiration Date 03/15/2027

By _______Miami-Dade Product Control



CHECKED BY

10/18/06

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