**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

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

# NOTICE OF ACCEPTANCE (NOA)

**Greenheck Fan Corporation**
**1110 Greenheck Drive (PO Box 410)**
**Schofield, WI 54476**

**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: Series USF / FJ Steel Rooftop Exhaust Fans w/ or w/o Stack**

**APPROVAL DOCUMENT:** Drawing No. **USF/FJ-1001**, titled "USF/FJ 4-24 Fan", sheets 1 through 10 of 10, dated 05/2023, prepared by Greenheck Fan Corporation, signed and sealed by Wayne K. Helmila, P.E. on 08/30/2023, bearing the Miami-Dade County Product Control Approval 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, Schofield, WI or Shelby, NC, 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 consists of this page 1 and evidence page E-1, as well as approval document mentioned above.
The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**

MIAMI-DADE COUNTY APPROVED

**Greenheck Fan Corporation**

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

### A. DRAWINGS

**1.** Drawing No. **USF/FJ-1001**, titled "USF/FJ 4-24 Fan", sheets 1 through 10 of 10, dated 05/2023, prepared by Greenheck Fan Corporation, signed and sealed by Wayne K. Helmila, P.E. on 08/30/2023.

### 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
3) Lateral loading per ASTM E72-15
along with marked-up drawings and installation diagram of Models USF/FJ-4 and USF/FJ-24 fans with discharge stack on direct mount, equipment supports, spring isolators, curb cab inlet box, prepared by Quast Consulting & Testing, Test Report No. **QCT21-6471.01**, dated 05/31/2023, signed and sealed by Brian M. Sasman, P.E.

### C. CALCULATIONS

**1.** Anchor verification calculations, prepared by Rice Engineering, dated 05/02/2023, signed and sealed by Wayne K. Helmila, P.E.

### 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 Rice Engineering, dated 05/23/2023, signed and sealed by Wayne K. Helmila, P.E.

**2.** Statement letter of no financial interest, issued by Rice Engineering, dated 05/23/2023, signed and sealed by Wayne K. Helmila, P.E.

**Carlos M. Utrera, P.E.**
**Product Control Examiner**
**NOA No. 23-0707.02**
**Expiration Date: October 5, 2028**
**Approval Date: October 5, 2023**

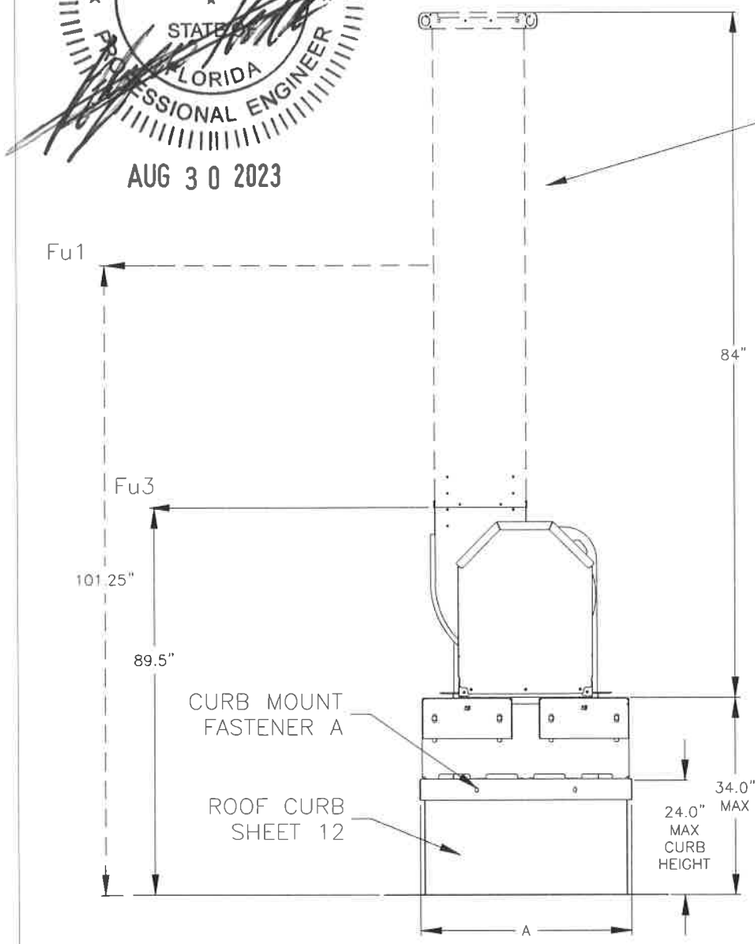
| DESIGN LIMITS: |
|---|
| Max Design Load: ±100 psf (4.8 Kpa) |
| Max Design Load with Stack: ±40 psf (1.9 Kpa) |
| Max Overall Enclosure W x L: 90.4 X 118.0 (2296 X 2997 mm) |
| Max Overall Height: 118.0 in (2997 mm) |

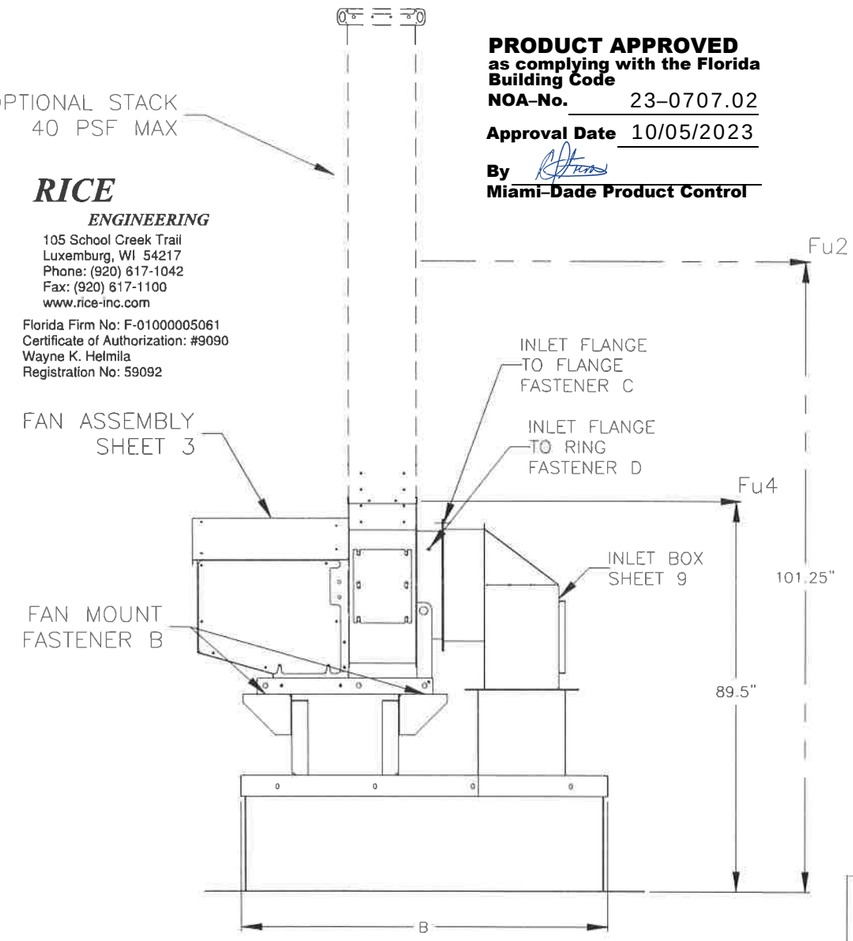
| | FASTENER A | | FASTENER B | | FASTENER C | | FASTENER D | |
|---|---|---|---|---|---|---|---|---|
| UNIT | DESCRIPTION | QTY. | DESCRIPTION | QTY. | DESCRIPTION | QTY. | DESCRIPTION | QTY. |
| *USF/FJ-04,06,08,10 | THREAD CUTTING SCREW,INDENTED HEXAGONAL WASHER HEAD, .313-18X1.25, TYPE-23,MECH | 12 | BOLT,HEXAGONAL SERRATED FLANGE,.5-13X1,GRADE 5,ZINC PLATED<br><br>NUT,HEXAGONAL SERRATED FLANGE,.5-13,GRADE 5,ZINC PLATED | 4 | BOLT,HEXAGONAL SERRATED FLANGE,.313-18X1,GRADE 5,ZINC PLATED<br><br>NUT,HEXAGONAL SERRATED FLANGE,.313-18,GRADE 5,ZINC PLATED | 4<br><br>8 | BOLT,HEXAGONAL SERRATED FLANGE,.313-18X1,GRADE 5,ZINC PLATED<br><br>NUT,HEXAGONAL SERRATED FLANGE,.313-18,GRADE 5,ZINC PLATED | 4<br><br>8 |
| *USF/FJ-04,06,08,12 | | 14 | | | | | | |
| USF/FJ-13 | | 16 | | | | | | |
| USF/FJ-15 | | 18 | | | | | | |
| USF/FJ-16 | | 20 | | | | | | |
| USF/FJ-18 | | 22 | | | | | | |
| USF/FJ-20 | | | | | | | | |
| USF/FJ-22 | | | | | | | | |
| USF/FJ-24 | | | | | | | | |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

AUG 30 2023




**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**


*RICE*
*ENGINEERING*
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092


ALL DIMENSIONS ARE IN INCHES

| UNIT | A | B | WEIGHT (LBS.) |
|---|---|---|---|
| *USF/FJ-04,06,08,10 | 25.8 | 45.0 | 248 |
| *USF/FJ-04,06,08,12 | 26.9 | 48.8 | 282 |
| USF/FJ-13 | 28.3 | 50.9 | 308 |
| USF/FJ-15 | 30.6 | 55.6 | 349 |
| USF/FJ-16 | 32.9 | 61.8 | 438 |
| USF/FJ-18 | 35.6 | 66.2 | 490 |
| USF/FJ-20 | 38.3 | 70.6 | 556 |
| USF/FJ-22 | 41.7 | 75.1 | 622 |
| USF/FJ-24 | 45.1 | 78.8 | 828 |

NOTES:
1. MODEL USF / FJ HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH MIAMI DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT), AND TAS-202 (STATIC LOADING).
2. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY LABORATORY EXHAUST FAN. FASTENERS SHALL BE SPECIFIED AND INSTALLED AS DETAILED.
3. DESIGN, TESTING, AND INSTALLATION CONFORMS TO FLORIDA BUILDING CODE.
4. DESIGN PRESSURE PER DESIGN LIMITS. ALSO, LARGE MISSILE IMPACT RESISTANT.
5. TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
6. THESE FANS HAVE NOT BEEN TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, TAS-100 (A)-95.
7. THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT RATING OF THE EXTERIOR HOUSNG ONLY, IT DOES NOT INCLUDE ANY INTERIOR MECHANISM OR ELECTRICAL PART.

Fu1: PERPENDICULAR ALLOWABLE LATERAL FORCE FOR USF/FJ-24 WITH STACK AT 40 PSF
Fu2: PARALLEL ALLOWABLE LATERAL FORCE FOR USF/FJ-24 WITH STACK AT 40 PSF
Fu3: PERPENDICULAR ALLOWABLE LATERAL FORCE FOR USF/FJ-24 WITHOUT STACK AT 100 PSF
Fu4: PARALLEL ALLOWABLE LATERAL FORCE FOR USF/FJ-24 WITHOUT STACK AT 100 PSF

Fu1 = 892 LBF
Fu2 = 682 LBF
Fu3 = 2137 LBF
Fu4 = 1329 LBF

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-1001 | B |

TITLE: USF/FJ 04-24 CCIB ASSEMBLY SHEET 1 OF 14

| DESIGN LIMITS: |
|---|
| Max Design Load: ±100 psf (4.8 Kpa) |
| Max Design Load with Stack: ±40 psf (1.9 Kpa) |
| Max Overall Enclosure W x L: 59.1" X 118.0" (1501 X 2997 mm) |
| Max Overall Height: 118.0 in (2997 mm) |

| | FASTENER A | | FASTENER B | |
|---|---|---|---|---|
| UNIT | DESCRIPTION | QTY. | DESCRIPTION | QTY. |
| *USF/FJ-04,06,08,10 | THREAD CUTTING SCREW,INDENTED HEXAGONAL WASHER HEAD, .313-18X1.25, TYPE-23,MECH | 10 | BOLT,HEXAGONAL SERRATED FLANGE,.5-13X1,GRADE 5,ZINC PLATED | 4 |
| *USF/FJ-04,06,08,12 | | | | |
| USF/FJ-13 | | | | |
| USF/FJ-15 | | | | |
| USF/FJ-16 | | 12 | NUT,HEXAGONAL SERRATED FLANGE,.5-13,GRADE 5,ZINC PLATED | |
| USF/FJ-18 | | | | |
| USF/FJ-20 | | | | |
| USF/FJ-22 | | 14 | | |
| USF/FJ-24 | | | | |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)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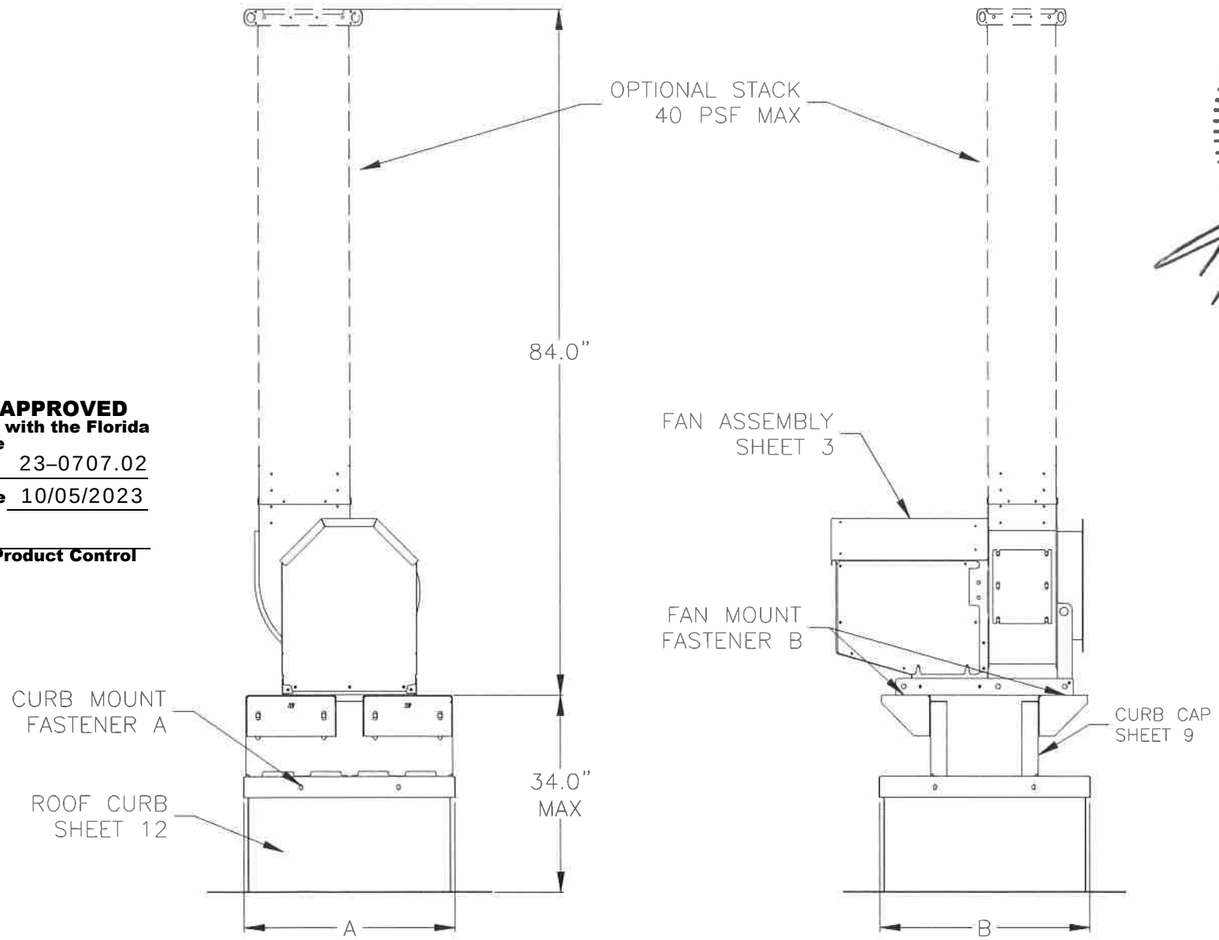
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092


WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER
AUG 30 2023

ALL DIMENSIONS ARE IN INCHES

| UNIT | A | B | WEIGHT (LBS.) |
|---|---|---|---|
| *USF/FJ-04,06,08,10 | 25.8 | 25.6 | 200 |
| *USF/FJ-04,06,08,12 | 26.9 | 28.0 | 224 |
| USF/FJ-13 | 27.6 | 29.0 | 241 |
| USF/FJ-15 | 28.5 | 32.4 | 270 |
| USF/FJ-16 | 29.4 | 37.3 | 347 |
| USF/FJ-18 | 30.5 | 40.2 | 383 |
| USF/FJ-20 | 31.5 | 43.1 | 432 |
| USF/FJ-22 | 32.9 | 45.7 | 475 |
| USF/FJ-24 | 34.2 | 47.5 | 657 |

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

NOTES:
1. MODELS USF / FJ HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH MIAMI DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT), AND TAS-202 (STATIC LOADING).
2. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY EXHAUST FAN. FASTENERS SHALL BE SPECIFIED AND INSTALLED AS DETAILED.
3. DESIGN, TESTING, AND INSTALLATION CONFORMS TO FLORIDA BUILDING CODE.
4. DESIGN PRESSURE PER DESIGN LIMITS. ALSO, LARGE MISSILE IMPACT RESISTANT.
5. TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
6. THESE FANS HAVE NOT BEEN TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, TAS-100 (A)-95.
7. THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT RATING OF THE EXTERIOR HOUSNG ONLY, IT DOES NOT INCLUDE ANY INTERIOR MECHANISM OR ELECTRICAL PART.

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE
USF/FJ 04-24
CC ASSEMBLY
SHEET 2 OF 14

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-1001 | B |

| DESIGN LIMITS: |
|---|
| Max Design Load: ±100psf (4.8 Kpa) |
| Max Design Load with Stack: ±40 psf (1.9 Kpa) |
| Max Overall Enclosure W x L: 58.00 X 84.00 (1473 X 2134 mm) |
| Max Overall Height: 84.00 in (2134 mm) |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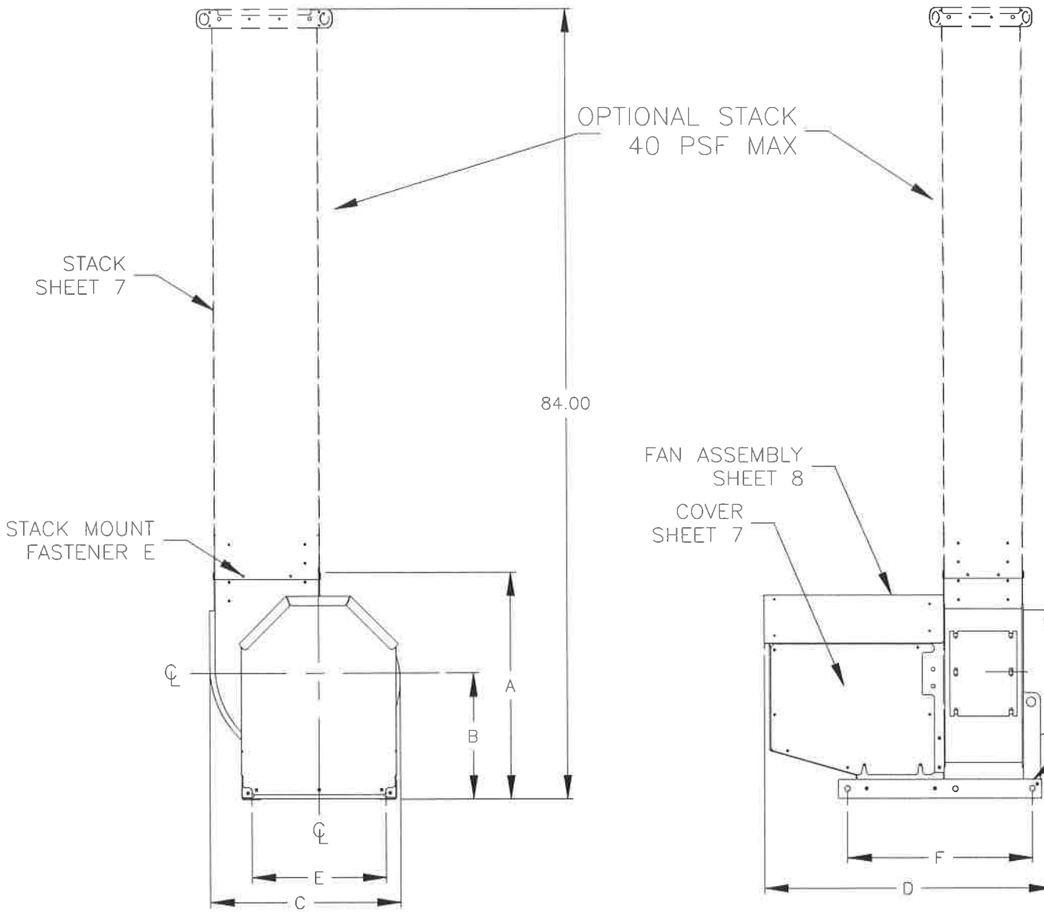
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092


WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

AUG 30 2023

ALL DIMENSIONS ARE IN INCHES

| UNIT | A | B | C | D | MOUNT HOLES E | MOUNT HOLES F | WEIGHT (LBS.) |
|---|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 24.05 | 13.37 | 20.09 | 30.49 | 14.30 | 19.63 | 148 |
| *USF/FJ-04,06,08,12 | 27.39 | 15.59 | 23.27 | 32.37 | 15.35 | 22.00 | 170 |
| USF/FJ-13 | 29.78 | 17.19 | 25.55 | 33.35 | 16.10 | 22.99 | 186 |
| USF/FJ-15 | 32.64 | 19.10 | 28.27 | 35.53 | 17.00 | 26.42 | 211 |
| USF/FJ-16 | 35.51 | 21.00 | 31.00 | 41.71 | 17.90 | 31.34 | 283 |
| USF/FJ-18 | 38.85 | 23.23 | 34.18 | 47.08 | 18.95 | 34.22 | 316 |
| USF/FJ-20 | 42.19 | 25.46 | 37.37 | 51.46 | 20.00 | 37.10 | 361 |
| USF/FJ-22 | 46.49 | 28.32 | 41.46 | 56.23 | 21.35 | 39.74 | 400 |
| USF/FJ-24 | 50.78 | 31.19 | 45.55 | 58.00 | 22.70 | 41.51 | 578 |







| UNIT | FASTENER E DESCRIPTION | FASTENER E QTY. | FASTENER F DESCRIPTION | FASTENER F QTY. | FASTENER G DESCRIPTION | FASTENER G QTY. |
|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | SHEET METAL SCREW,INDENTED HEXAGONAL WASHER HEAD,#12-11X.625 ZINC PLATED,TYPE-A,WITH ETHYLENE PROPYLENE DIENE MONOMER | 24 | BOLT,HEXAGONAL SERRATED FLANGE,.313-18X1,GRADE 5,ZINC PLATED<br>WASHER,FLAT,.31X.083X.375X.875, ZINC PLATED<br>NUT,INSERT,HEXAGONAL HEAD ,.31-18,ZINC PLATED | 4<br>8 | THREAD ROLLING SCREW,SLOTTED INDENTED HEXAGONAL WASHER HEAD,.25-20X.5 ZINC PLATED/WAX | 6<br>8 |
| *USF/FJ-04,06,08,12 | | 24 | | | | |
| USF/FJ-13 | | 26 | | | | |
| USF/FJ-15 | | | | | | |
| USF/FJ-16 | | | | | | |
| USF/FJ-18 | | 32 | | | | |
| USF/FJ-20 | | | | | | |
| USF/FJ-22 | | | | | | |
| USF/FJ-24 | | | | | | |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

NOTES:
1. MODEL USF / FJ HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH MIAMI DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT), AND TAS-202 (STATIC LOADING).
2. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY LABORATORY EXHAUST FAN. FASTENERS SHALL BE SPECIFIED AND INSTALLED AS DETAILED.
3. DESIGN, TESTING, AND INSTALLATION CONFORMS TO FLORIDA BUILDING CODE.
4. DESIGN PRESSURE PER DESIGN LIMITS. ALSO, LARGE MISSILE IMPACT RESISTANT.
5. TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
6. THESE FANS HAVE NOT BEEN TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, TAS-100 (A)-95.
7. THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT RATING OF THE EXTERIOR HOUSNG ONLY, IT DOES NOT INCLUDE ANY INTERIOR MECHANISM OR ELECTRICAL PART.

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE
USF/FJ 04-24
FAN
SHEET 3 OF 14

| | |
|---|---|
| DRAWN BY | MATTSON_J |
| ECO | |
| DATE | 05/2023 |
| ENG. REF. | NOA TESTING |
| SUPERSEDES | |
| SCALE | 1/10 |
| CAD DRAWING NO. | B |
| | USF/FJ-1001 |

| DESIGN LIMITS: |
|---|
| Max Design Load: ±100psf (4.8 Kpa) |
| Max Design Load with Stack: ±40 psf (1.9 Kpa) |
| Max Overall Enclosure W x L: 45.55 X 58.00 (1157 X 1473 mm) |
| Max Overall Height: 50.78 in (1290 mm) |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Florida Firm No: F-01000005061
Certificate of Authorization: #9090
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WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

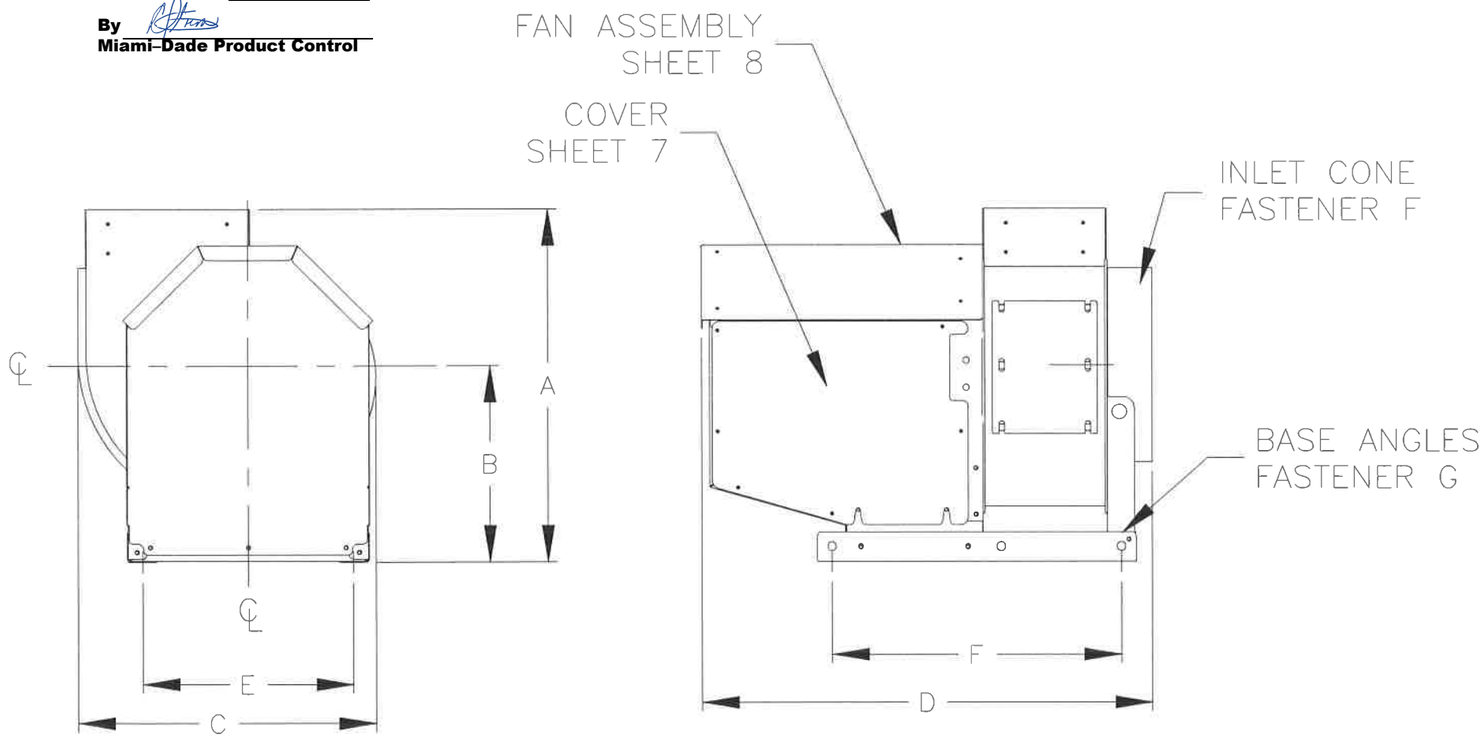
AUG 30 2023

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

ALL DIMENSIONS ARE IN INCHES

| UNIT | A | B | C | D | MOUNT HOLES E | MOUNT HOLES F | WEIGHT (LBS.) |
|---|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 24.05 | 13.37 | 20.09 | 30.49 | 14.30 | 19.63 | 109 |
| *USF/FJ-04,06,08,12 | 27.39 | 15.59 | 23.27 | 32.37 | 15.35 | 22.00 | 127 |
| USF/FJ-13 | 29.78 | 17.19 | 25.55 | 33.35 | 16.10 | 22.99 | 141 |
| USF/FJ-15 | 32.64 | 19.10 | 28.27 | 35.53 | 17.00 | 26.42 | 164 |
| USF/FJ-16 | 35.51 | 21.00 | 31.00 | 41.71 | 17.90 | 31.34 | 234 |
| USF/FJ-18 | 38.85 | 23.23 | 34.18 | 47.08 | 18.95 | 34.22 | 265 |
| USF/FJ-20 | 42.19 | 25.46 | 37.37 | 51.46 | 20.00 | 37.10 | 310 |
| USF/FJ-22 | 46.49 | 28.32 | 41.46 | 56.23 | 21.35 | 39.74 | 348 |
| USF/FJ-24 | 50.78 | 31.19 | 45.55 | 58.00 | 22.70 | 41.51 | 528 |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)




| | FASTENER F | | FASTENER G | |
|---|---|---|---|---|
| UNIT | DESCRIPTION | QTY. | DESCRIPTION | QTY. |
| *USF/FJ-04,06,08,10 | BOLT,HEXAGONAL SERRATED FLANGE,.313-18X1,GRADE 5,ZINC PLATED | 4 | THREAD ROLLING SCREW,SLOTTED INDENTED HEXAGONAL WASHER HEAD,.25-20X.5 ZINC PLATED/WAX | 6 |
| *USF/FJ-04,06,08,12 | | | | |
| USF/FJ-13 | | | | |
| USF/FJ-15 | | | | |
| USF/FJ-16 | WASHER,FLAT,.31X.083X.375X.875, ZINC PLATED | | | |
| USF/FJ-18 | | 8 | | 8 |
| USF/FJ-20 | NUT,INSERT,HEXAGONAL HEAD ,.31-18,ZINC PLATED | | | |
| USF/FJ-22 | | | | |
| USF/FJ-24 | | | | |

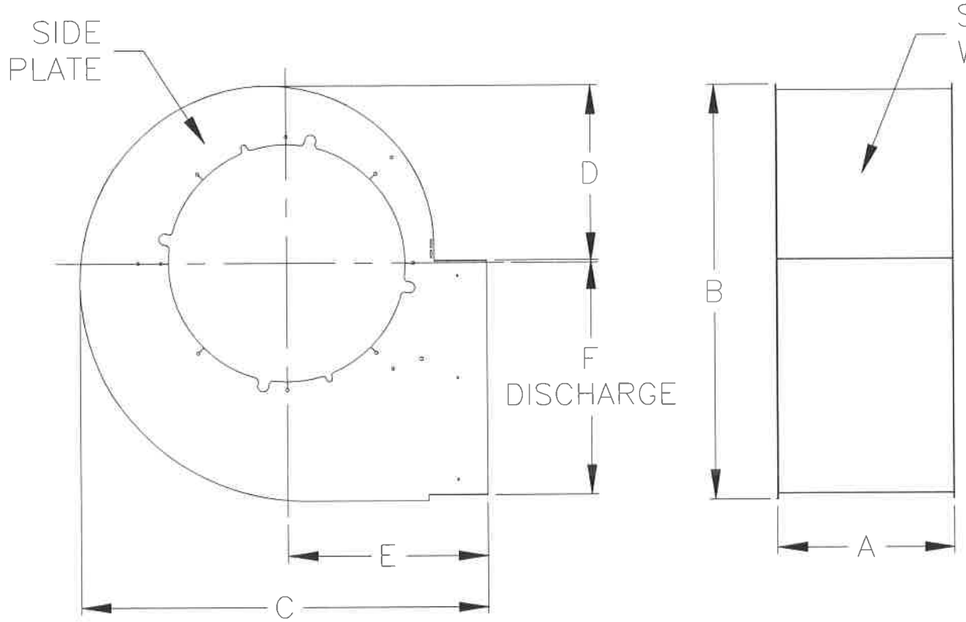
NOTES:
1. MODEL USF / FJ HAS BEEN SUCCESSFULLY TESTED IN ACCORDANCE WITH MIAMI DADE TEST PROTOCOL TAS-201 (LARGE MISSILE IMPACT), AND TAS-202 (STATIC LOADING).
2. ROOF STRUCTURE MUST BE DESIGNED TO WITHSTAND THE WEIGHT AND LOADING TRANSMITTED BY LABORATORY EXHAUST FAN. FASTENERS SHALL BE SPECIFIED AND INSTALLED AS DETAILED.
3. DESIGN, TESTING, AND INSTALLATION CONFORMS TO FLORIDA BUILDING CODE.
4. DESIGN PRESSURE PER DESIGN LIMITS. ALSO, LARGE MISSILE IMPACT RESISTANT.
5. TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
6. THESE FANS HAVE NOT BEEN TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, TAS-100 (A)-95.
7. THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT RATING OF THE EXTERIOR HOUSNG ONLY, IT DOES NOT INCLUDE ANY INTERIOR MECHANISM OR ELECTRICAL PART.

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

| | |
|---|---|
| DRAWN BY | MATTSON_J |
| DATE | 05/2023 |
| SUPERSEDES | |
| SCALE | 1/10 |
| ECO | |
| ENG. REF. | NOA TESTING |
| CAD DRAWING NO. | B |

TITLE
USF/FJ 04-24
FAN
SHEET 4 OF 14

USF/FJ-1001




***RICE***
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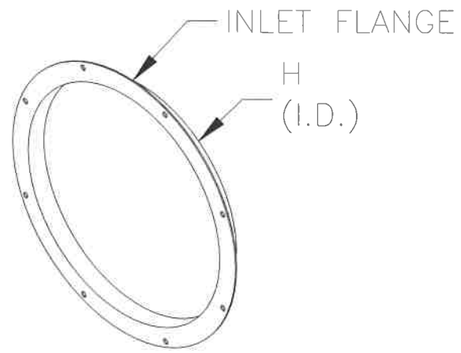
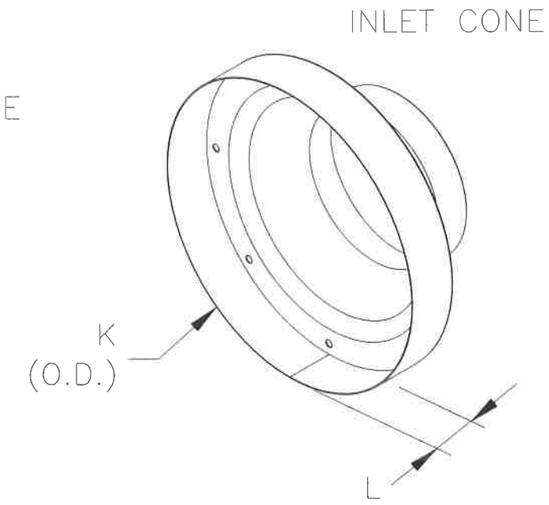
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



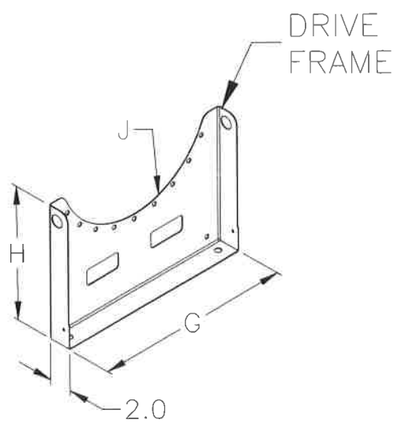




| UNIT | A | B | C | D | E | F | SIDE PLATE | SCROLL WRAP |
|---|---|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 8.5 | 20.1 | 20.7 | 8.6 | 10.7 | 11.1 | 14 GA. COLD ROLLED DRAWING STEEL Fymin=26Ksi | 18 GA. GALVANNEAL CARBON STEEL Fymin=26Ksi |
| *USF/FJ-04,06,08,12 | 9.9 | 23.3 | 23.4 | 10.0 | 11.8 | 12.9 | | |
| USF/FJ-13 | 10.9 | 25.5 | 25.4 | 10.9 | 12.6 | 14.2 | | |
| USF/FJ-15 | 12.0 | 28.3 | 27.7 | 12.1 | 13.5 | 15.8 | | |
| USF/FJ-16 | 13.2 | 31.0 | 30.0 | 13.3 | 14.5 | 17.4 | | |
| USF/FJ-18 | 14.6 | 34.2 | 32.7 | 14.6 | 15.6 | 19.2 | | |
| USF/FJ-20 | 16.0 | 37.4 | 35.4 | 16.0 | 16.7 | 21.1 | | |
| USF/FJ-22 | 17.7 | 41.5 | 38.9 | 17.7 | 18.2 | 23.5 | | |
| USF/FJ-24 | 19.5 | 45.5 | 42.4 | 19.4 | 19.6 | 25.8 | | |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)

| UNIT | H | INLET FLANGE |
|---|---|---|
| *USF/FJ-04,06,08,10 | 13.2 | 1.50x1.50x .125 CRS |
| *USF/FJ-04,06,08,12 | 15.4 | |
| USF/FJ-13 | 17.1 | |
| USF/FJ-15 | 19.0 | |
| USF/FJ-16 | 21.0 | |
| USF/FJ-18 | 23.2 | |
| USF/FJ-20 | 25.5 | |
| USF/FJ-22 | 28.4 | |
| USF/FJ-24 | 31.3 | |

| UNIT | K | L | INLET CONE |
|---|---|---|---|
| *USF/FJ-04,06,08,10 | 13.8 | 3.00 | 14 GA. COLD ROLLED DRAWING STEEL Fymin=26Ksi |
| *USF/FJ-04,06,08,12 | 16.0 | | |
| USF/FJ-13 | 17.7 | | |
| USF/FJ-15 | 19.6 | | |
| USF/FJ-16 | 21.5 | | |
| USF/FJ-18 | 23.8 | | |
| USF/FJ-20 | 26.1 | | |
| USF/FJ-22 | 29.0 | | |
| USF/FJ-24 | 31.9 | | |




| UNIT | G | H | J | DRIVE FRAME |
|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 16.3 | 11.1 | 7.0 | 14 GA. COLD ROLLED DRAWING STEEL Fymin=26Ksi |
| *USF/FJ-04,06,08,12 | 17.4 | 12.0 | 8.2 | |
| USF/FJ-13 | 18.1 | 12.7 | 9.0 | |
| USF/FJ-15 | 19.0 | 13.7 | 9.9 | |
| USF/FJ-16 | 19.9 | 14.7 | 10.9 | |
| USF/FJ-18 | 21.0 | 15.9 | 12.0 | |
| USF/FJ-20 | 22.0 | 17.2 | 13.2 | |
| USF/FJ-22 | 23.4 | 18.8 | 14.6 | |
| USF/FJ-24 | 24.7 | 20.4 | 16.1 | |


AUG 30 2023

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

ALL DIMENSIONS ARE IN INCHES

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE
USF/FJ 04-24
FAN MATERIALS
SHEET 5 OF 14

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-1001 | B |

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COVER MATERIAL
ALL OTHER COMPONENTS: PEDESTAL MATERIAL
MATERIAL CALLED OUT IN TABLE


**RICE**
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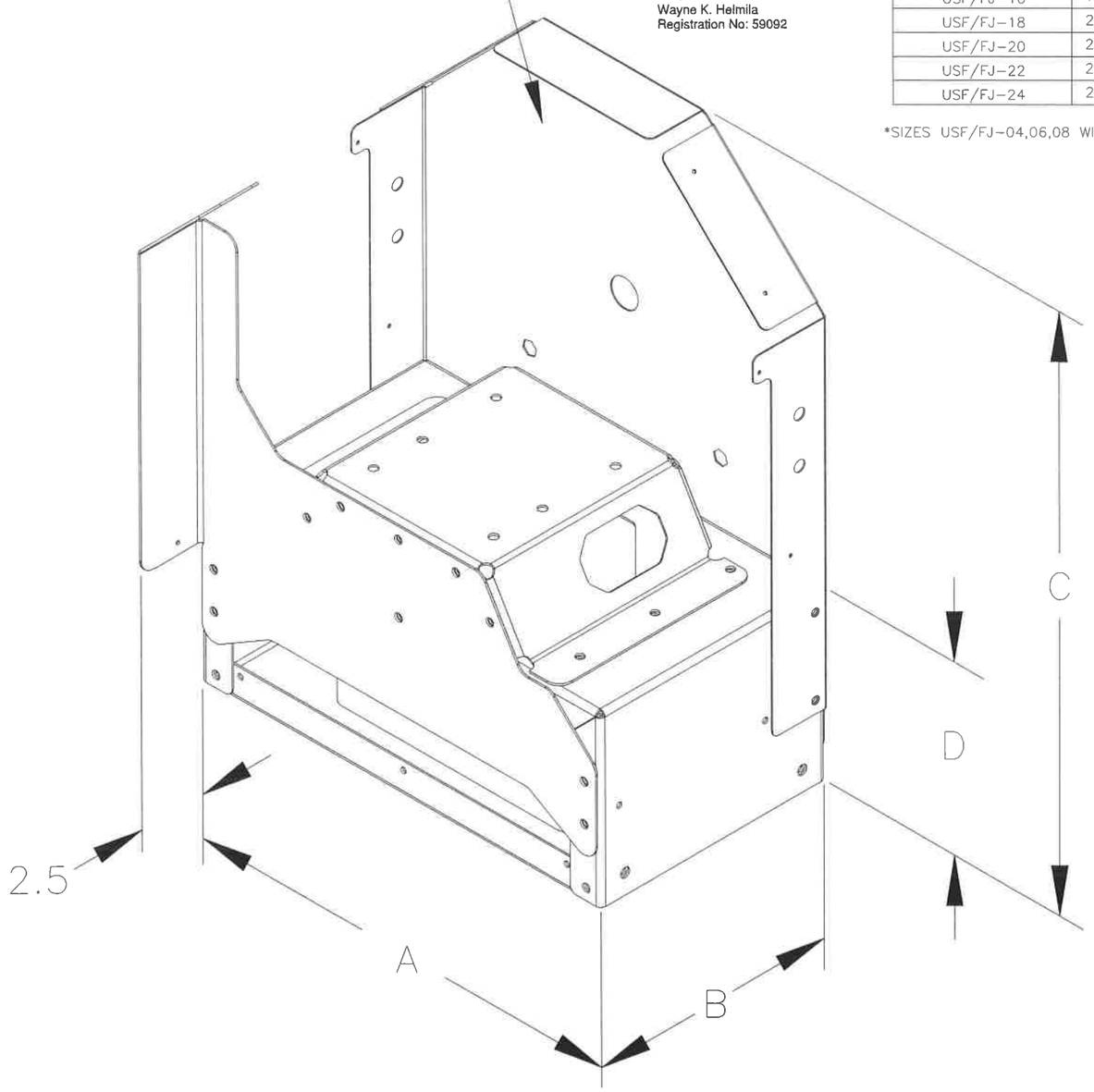
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092


| UNIT | A | B | C | D | PEDESTAL | COVER | FASTENER H PEDESTAL TO PEDESTAL DESCRIPTION | FASTENER H PEDESTAL TO PEDESTAL QTY. |
|---|---|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 16.3 | 9.3 | 21.6 | 14.4 | 14 GA. COLD ROLLED DRAWING STEEL Fymin=26Ksi | 18 GA. GALVANNEAL CARBON STEEL Fymin=26Ksi | THREAD ROLLING SCREW,SLOTTED INDENTED HEXAGONAL WASHER HEAD,.25-20X.5 ZINC PLATED/WAX | 28 |
| *USF/FJ-04,06,08,12 | 17.4 | 10.3 | 24.3 | 15.9 | | | | |
| USF/FJ-13 | 18.1 | | 26.3 | 16.9 | | | | |
| USF/FJ-15 | 19.0 | 12.5 | 28.6 | 18.1 | | | | |
| USF/FJ-16 | 19.9 | 16.3 | 31.0 | 19.4 | | | | 30 |
| USF/FJ-18 | 21.0 | 17.8 | 33.8 | 20.8 | | | | |
| USF/FJ-20 | 22.0 | 19.3 | 36.5 | 22.3 | | | | |
| USF/FJ-22 | 23.4 | 20.1 | 40.0 | 24.1 | | | | |
| USF/FJ-24 | 24.7 | | 43.6 | 26.0 | | | | |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)




WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

AUG 30 2023

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-1001 | B |

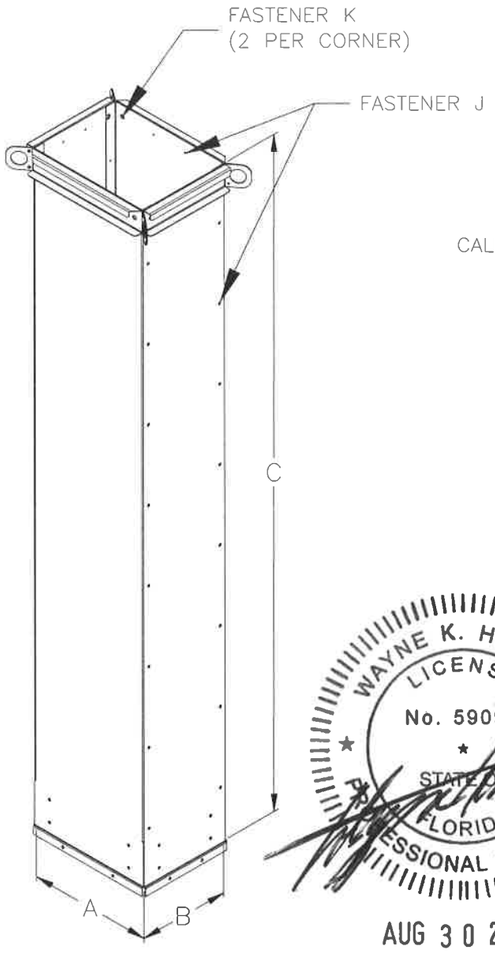
TITLE
USF/FJ 04-24
PEDESTAL DIMENSIONS
SHEET 6 OF 14

ALL DIMENSIONS ARE IN INCHES

| UNIT | A | B | C | MATERIAL | FASTENER J DESCRIPTION | FASTENER J QTY. | FASTENER K DESCRIPTION | FASTENER K QTY. |
|---|---|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 11.1 | 8.3 | 60.0 | 18 GA. GALVANNEAL CARBON STEEL Fymin=26Ksi | SHEET METAL SCREW,INDENTED HEXAGONAL WASHER HEAD,#12-11X.625 ZINC PLATED,TYPE-A,WITH ETHYLENE PROPYLENE DIENE MONOMER | 24 | BOLT,HEXAGONAL SERRATED FLANGE,.313-18X1,GRADE 5,ZINC PLATED<br>NUT,HEXAGONAL SERRATED FLANGE,.313-18,GRADE 5,ZINC PLATED | 8 |
| *USF/FJ-04,06,08,12 | 12.9 | 9.6 | 56.6 | | | | | |
| USF/FJ-13 | 14.2 | 10.6 | 54.2 | | | | | |
| USF/FJ-15 | 15.8 | 11.8 | 51.4 | | | 26 | | |
| USF/FJ-16 | 17.4 | 13.0 | 48.5 | | | | | |
| USF/FJ-18 | 19.2 | 14.3 | 45.2 | | | | | |
| USF/FJ-20 | 21.1 | 15.7 | 41.8 | | | 32 | | |
| USF/FJ-22 | 23.5 | 17.5 | 37.5 | | | | | |
| USF/FJ-24 | 25.8 | 19.3 | 33.2 | | | | | |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)

| UNIT | FASTENER L COVER TO COVER DESCRIPTION | FASTENER L QTY. | FASTENER M COVER TO PEDESTAL DESCRIPTION | FASTENER M QTY. | FASTENER N LIFT LUG TO COVER DESCRIPTION | FASTENER N QTY. |
|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | SHEET METAL SCREW,INDENTED HEXAGONAL WASHER HEAD,#12-11X.625 ZINC PLATED,TYPE-A,WITH ETHYLENE PROPYLENE DIENE MONOMER | 20 | THREAD ROLLING SCREW,SLOTTED INDENTED HEXAGONAL WASHER HEAD,.25-20X.5 ZINC PLATED/WAX | 15 | BOLT,HEXAGONAL SERRATED FLANGE,.313-18X1,GRADE 5,ZINC PLATED<br>NUT,HEXAGONAL SERRATED FLANGE,.313-18,GRADE 5,ZINC PLATED | 6 |
| *USF/FJ-04,06,08,12 | | | | | | |
| USF/FJ-13 | | | | | | |
| USF/FJ-15 | | | | | | |
| USF/FJ-16 | | | | | | |
| USF/FJ-18 | | 24 | | 17 | | |
| USF/FJ-20 | | | | | | |
| USF/FJ-22 | | | | | | |
| USF/FJ-24 | | | | | | |




STACK

**RICE**
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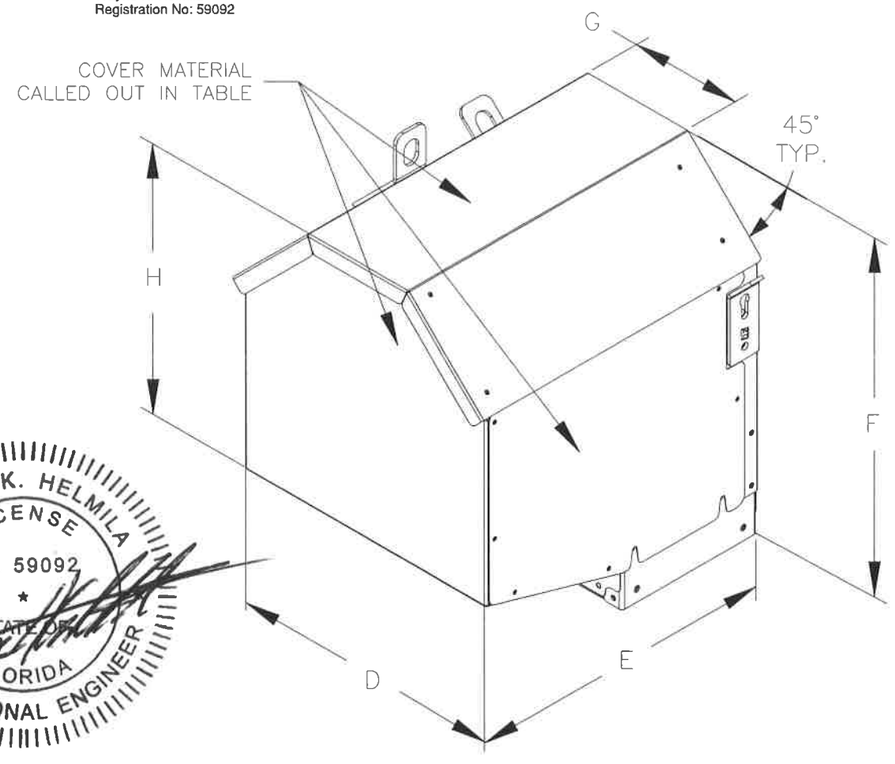
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092




WEATHERHOOD

| UNIT | D | E | F | G | H | COVER MATERIAL |
|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 16.3 | 19.0 | 21.6 | 6.8 | 16.4 | 18 GA. GALVANNEAL CARBON STEEL Fymin=26Ksi |
| *USF/FJ-04,06,08,12 | 17.4 | 19.5 | 24.3 | 7.2 | 17.9 | |
| USF/FJ-13 | 18.1 | | 26.3 | 7.5 | 18.9 | |
| USF/FJ-15 | 19.0 | 20.5 | 28.6 | 7.9 | 20.1 | |
| USF/FJ-16 | 19.9 | 25.5 | 31.0 | 8.2 | 21.4 | |
| USF/FJ-18 | 21.0 | 29.5 | 33.8 | 8.7 | 22.8 | |
| USF/FJ-20 | 22.0 | 32.5 | 36.5 | 9.1 | 24.3 | |
| USF/FJ-22 | 23.4 | 35.5 | 40.0 | 9.7 | 26.1 | |
| USF/FJ-24 | 24.7 | | 43.6 | 10.2 | 28.0 | |

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER
AUG 30 2023

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE
USF/FJ 04-24
ENCLOSURE DIMENSIONS
SHEET 7 OF 14

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-1001 | B |

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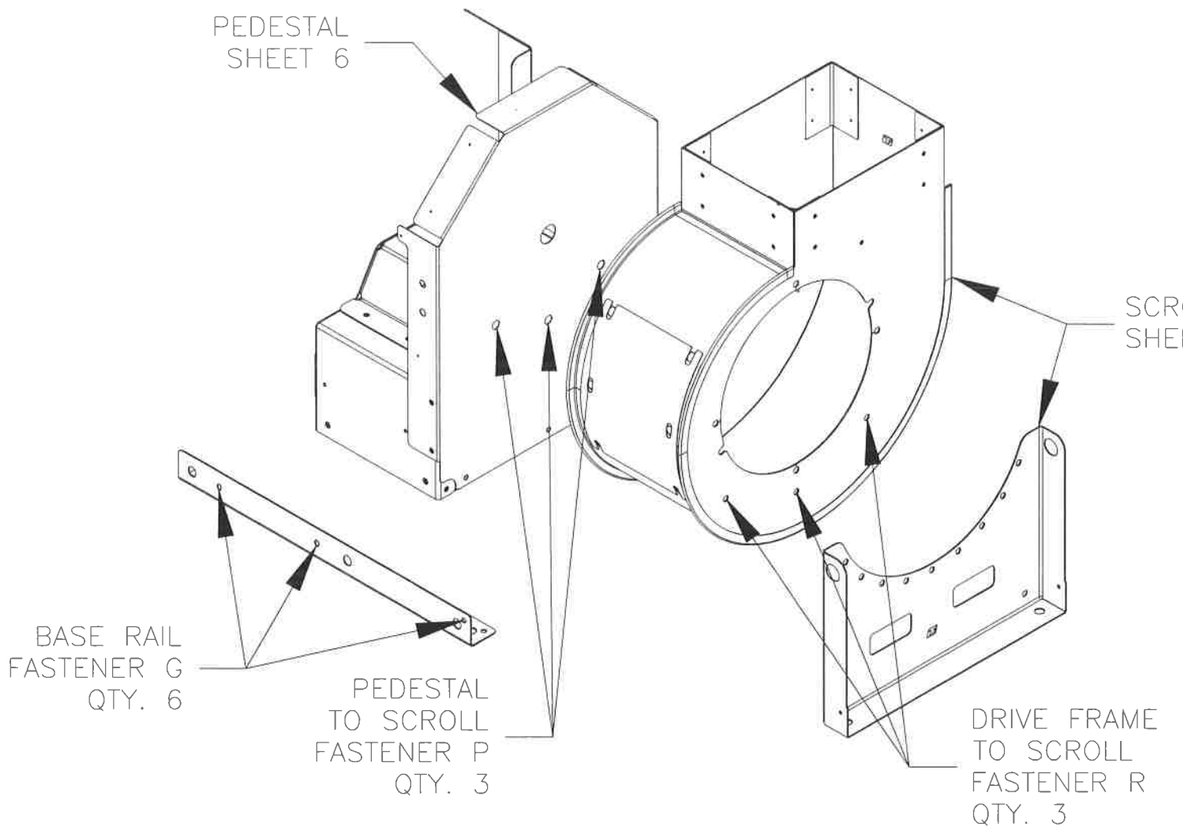
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

| | FASTENER G | FASTENER P | FASTENER R |
|---|---|---|---|
| UNIT | DESCRIPTION | DESCRIPTION | DESCRIPTION |
| *USF/FJ-04,06,08,10 | THREAD ROLLING SCREW,SLOTTED INDENTED HEXAGONAL WASHER HEAD,.25-20X.5 ZINC PLATED/WAX | BOLT,HEXAGONAL SERRATED FLANGE, .313-18X1, GRADE 5, ZINC PLATED<br><br>WASHER,FLAT, .31X.083X.375X.875, ZINC PLATED<br><br>NUT,INSERT,HEXAGONAL HEAD,.31-18,ZINC PLATED | BOLT,HEXAGONAL SERRATED FLANGE,.313-18X1,GRADE 5,ZINC PLATED<br><br>NUT,HEXAGONAL SERRATED FLANGE,.313-18,GRADE 5,ZINC PLATED |
| *USF/FJ-04,06,08,12 | | | |
| USF/FJ-13 | | | |
| USF/FJ-15 | | | |
| USF/FJ-16 | | | |
| USF/FJ-18 | | | |
| USF/FJ-20 | | | |
| USF/FJ-22 | | | |
| USF/FJ-24 | | | |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)




FAN ASSEMBLY

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

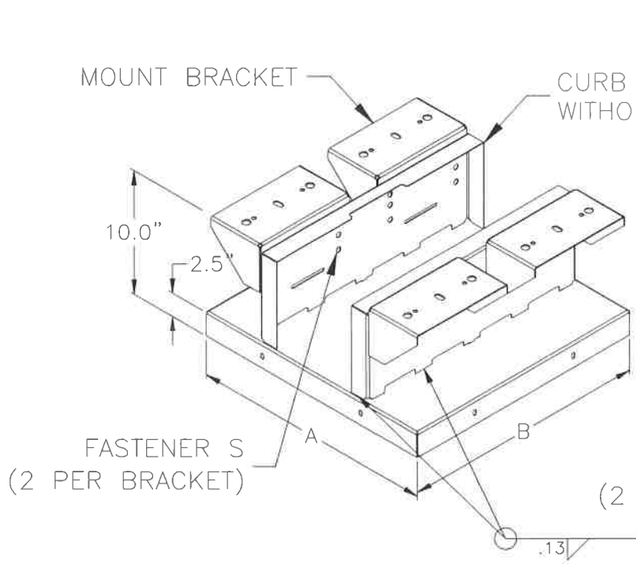
AUG 30 2023

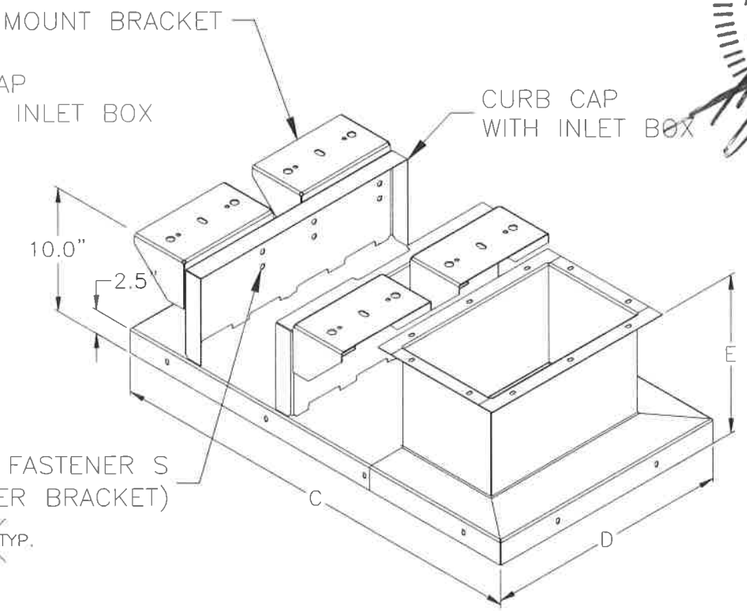
**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

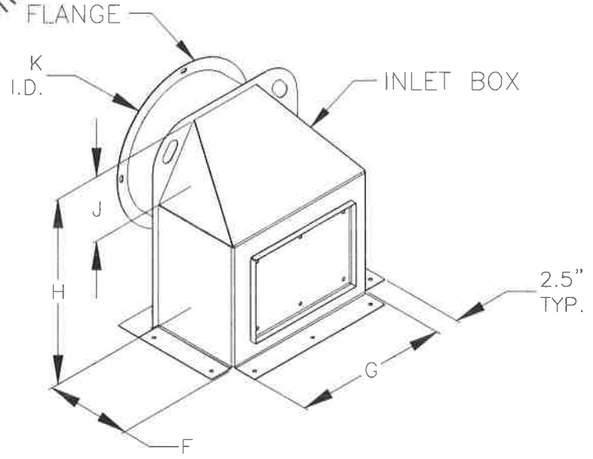
GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-1001 | B |

TITLE: USF/FJ 04-24 FAN ASSEMBLY SHEET 8 OF 14




WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

AUG 30 2023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Registration No: 59092


| UNIT | A | B | C | D | E | CURB CAP | MOUNT BRACKET | FASTENER S DESCRIPTION | FASTENER S QTY. |
|---|---|---|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 25.6 | 25.8 | 45.0 | 25.8 | 10.6 | 14 GA. COLD ROLLED DRAWING STEEL Fymin=26Ksi | 12 GA. HOT ROLLED CARBON STEEL Fymin=43Ksi | BOLT,HEXAGONAL SERRATED FLANGE,.5-13X1,GRADE 5,ZINC PLATED<br>NUT,HEXAGONAL SERRATED FLANGE,.5-13,GRADE 5,ZINC PLATED | 8 |
| *USF/FJ-04,06,08,12 | 28.0 | 26.9 | 48.8 | 26.9 | 10.7 | | | | |
| USF/FJ-13 | 29.0 | 27.6 | 50.9 | 28.3 | 10.7 | | | | |
| USF/FJ-15 | 32.4 | 28.5 | 55.6 | 30.6 | 10.8 | | | | |
| USF/FJ-16 | 37.3 | 29.4 | 61.8 | 32.9 | 10.9 | | | | |
| USF/FJ-18 | 40.2 | 30.5 | 66.2 | 35.6 | 11.0 | | | | |
| USF/FJ-20 | 43.1 | 31.5 | 70.6 | 38.3 | 11.1 | | | | |
| USF/FJ-22 | 45.7 | 32.9 | 75.1 | 41.7 | 11.2 | | | | |
| USF/FJ-24 | 47.5 | 34.2 | 78.8 | 45.1 | 11.3 | | | | |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)

| UNIT | F | G | H | J | K | INLET BOX | INLET FLANGE |
|---|---|---|---|---|---|---|---|
| *USF/FJ-04,06,08,10 | 9.0 | 16.1 | 19.6 | 6.8 | 13.6 | 14 GA. COLD ROLLED DRAWING STEEL Fymin=26Ksi | 12 GA. HOT ROLLED CARBON STEEL Fymin=43Ksi |
| *USF/FJ-04,06,08,12 | 10.5 | 18.8 | 22.8 | 7.9 | 15.8 | | |
| USF/FJ-13 | 11.6 | 20.7 | 25.2 | 8.7 | 17.5 | | |
| USF/FJ-15 | 12.9 | 23.0 | 28.0 | 9.7 | 19.4 | | |
| USF/FJ-16 | 14.1 | 25.3 | 30.8 | 10.7 | 21.3 | | |
| USF/FJ-18 | 15.6 | 27.9 | 34.0 | 11.8 | 23.6 | | |
| USF/FJ-20 | 17.1 | 30.6 | 37.3 | 12.9 | 25.9 | | |
| USF/FJ-22 | 19.1 | 34.1 | 41.5 | 14.4 | 28.8 | | |
| USF/FJ-24 | 21.0 | 37.5 | 45.7 | 15.8 | 31.7 | | |

**PRODUCT APPROVED**
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**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

ALL DIMENSIONS ARE IN INCHES

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE
USF/FJ 04-24
CCIB MATERIALS
SHEET 9 OF 14

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-2001 | B |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)

ALL DIMENSIONS ARE IN INCHES

| UNIT | Equipment Support End Dimension |
|---|---|
| | WIDTH |
| *USF/FJ-04,06,08,10 | 28" |
| *USF/FJ-04,06,08,12 | 29" |
| USF/FJ-13 | 30" |
| USF/FJ-15 | 31" |
| USF/FJ-16 | 32" |
| USF/FJ-18 | 33" |
| USF/FJ-20 | 34" |
| USF/FJ-22 | 35" |
| USF/FJ-24 | 36" |


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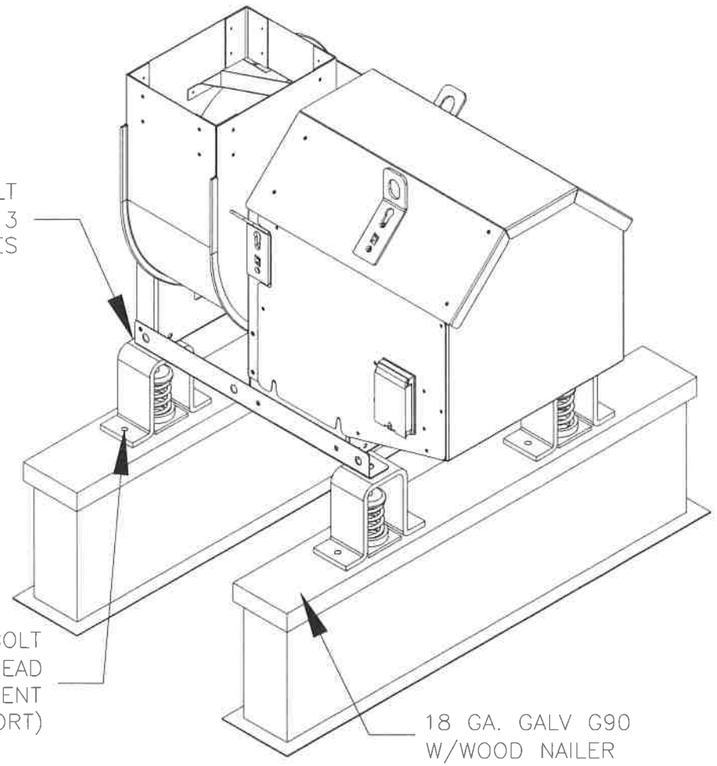
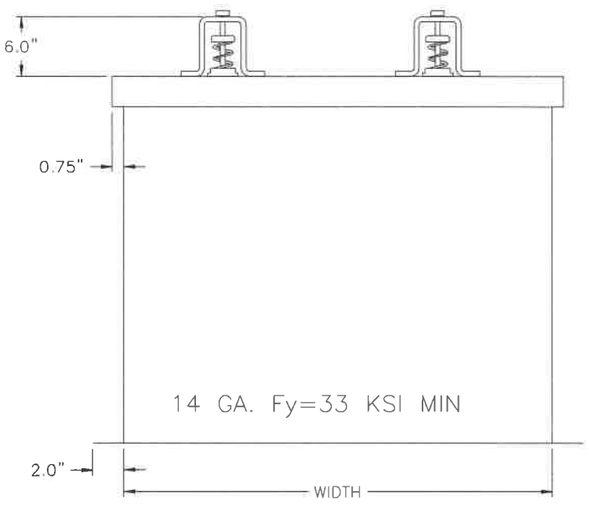
WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

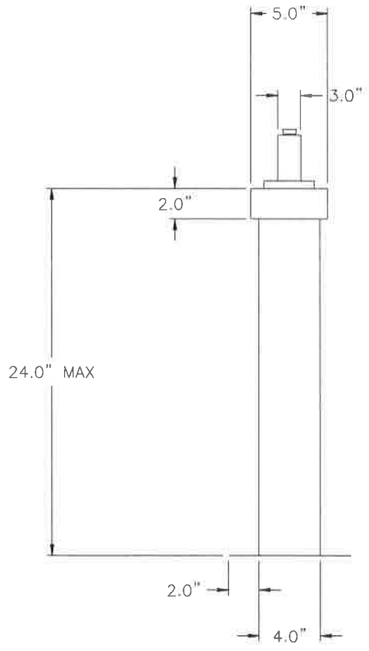
AUG 30 2023




EQUIPMENT SUPPORT INSTALLATION




EQUIPMENT SUPPORT SIDE PROFILE




EQUIPMENT SUPPORT END PROFILE

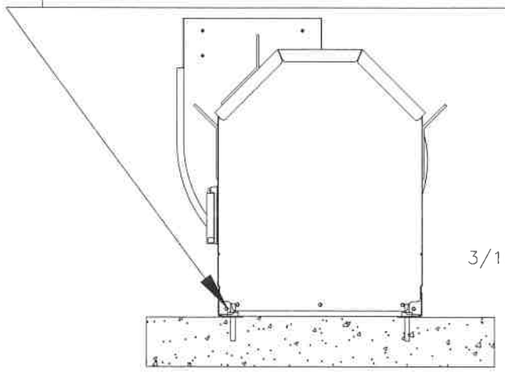
**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

TITLE
USF/FJ 04-24
EQUIPMENT SUPPORT
MATERIALS
SHEET 10 OF 14

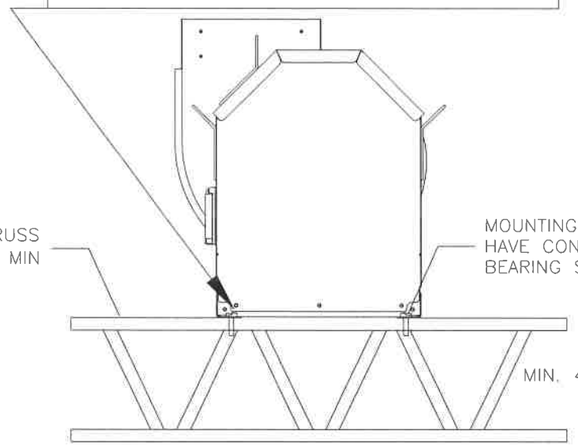
| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/12 | |
| CAD DRAWING NO.: USF/FJ-2001 | B |

ANCHORAGE INTO CONCRETE:
USE (6) 1/2" DIA. KWIK BOLT TZ2 WEDGE ANCHOR
304 STAINLESS STEEL
EFFECTIVE EMBEDMENT DEPTH: 3.25" MIN.
NOMINAL EMBEDMENT: 3.75" MIN.
INSTALL HOLE DEPTH: 4.25" MIN.
EDGE DISTANCE: 6" MIN.
SPACING: 12" MIN.
MIN. SLAB THICKNESS: 5.5" – NORMAL WT., CRACKED
CONCRETE COMPRESSIVE STRENGTH: F'C= 3,000 PSI
**INSTALL PER MANUFACTURER'S INSTRUCTIONS**



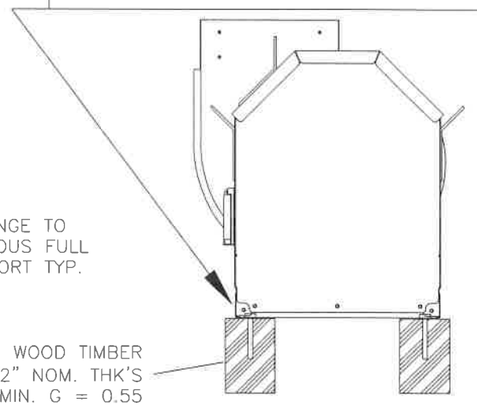
CONCRETE DECK ANCHORING

ANCHORAGE INTO STEEL:
USE (6) 5/16" DIA, S.S. FASTENERS
300 SERIES, S.S. COND. CW FY = 65 KSI
WITH 5/8" MIN. 300 SERIES S.S. WASHER
MIN: 3/16" THREAD ENGAGEMENT
INTO MIN. FY = 33KSI STEEL.
SPACING: 1" MIN.
EDGE DISTANCE: 1" MIN.
END DISTANCE: 1" MIN.

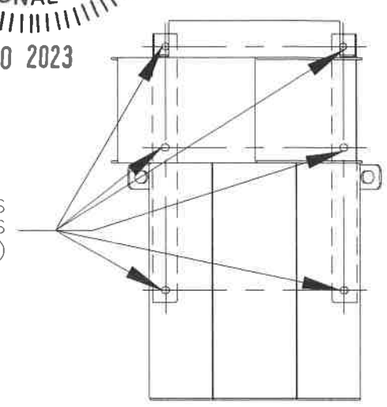



STEEL ANCHORING

ANCHORAGE INTO WOOD:
USE (6) 1/2" DIA, 316 S.S. LAG BOLTS (FY = 65KSI)
S. PINE (G = 0.55 MIN) – PREDRILL AS RECOMMENDED
PENETRATION = 3 3/4" (MIN: 4" LONG)
MIN OF 2 1/2" OF THREADS TO BE ENGAGED INTO WOOD
WOOD: (3) 2X 4 1/2" MIN.
SPACING: 2 1/2" MIN.
EDGE DISTANCE: 2" MIN.
END DISTANCE: 3 1/2" MIN.




TIMBER ANCHORING

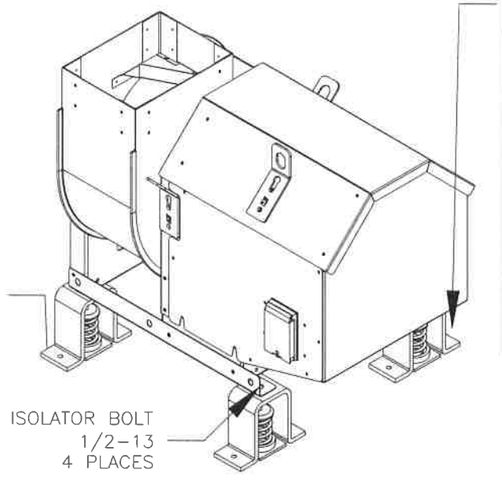



WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

AUG 30 2023


**RICE**
*ENGINEERING*
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092


## MOUNTING PER ISOLATORS

ANCHORAGE INTO STEEL:
USE (2) 5/16" DIA, S.S. FASTENERS
300 SERIES, S.S. COND. CW FY = 65KSI
WITH 5/8" MIN. 300 SERIES S.S. WASHER
MIN: 3/16" THREAD ENGAGEMENT
INTO MIN. FY = 33 KSI STEEL
EDGE DISTANCE: 1" MIN
END DISTANCE: 1" MIN
– – – OR – – –
USE (2) 1/2" DIA, S.S. THRU BOLTS
300 SERIES, S.S. COND. CW FY = 65KSI
WITH 3/4" MIN. 300 SERIES S.S. WASHER
THROUGH 3/16" MIN.THICK STEEL
FY = 33 KSI MIN.
EDGE DISTANCE: 1" MIN
END DISTANCE: 1" MIN

ANCHORAGE INTO CONCRETE:
USE (2) 1/2" DIA. KWIK BOLT TZ2 WEDGE ANCHOR
304 STAINLESS STEEL
EFFECTIVE EMBEDMENT DEPTH: 3.25" MIN.
NOMINAL EMBEDMENT: 3.75" MIN.
INSTALL HOLE DEPTH: 4.25" MIN.
EDGE DISTANCE: 6" MIN.
MIN. SLAB THICKNESS: 5.5" – NORMAL WT., CRACKED
CONCRETE COMPRESSIVE STRENGTH: F'C= 3,000 PSI
**INSTALL PER MANUFACTURER'S INSTRUCTIONS**
(HAMMER DRILLED HOLE, INSTALLATION CONDITION: DRY)

ANCHORAGE INTO WOOD:
USE (2) 1/2" DIA, 316 S.S. LAG BOLTS (FY = 65KSI)
S. PINE (G = 0.55 MIN) – PREDRILL AS RECOMMENDED
PENETRATION = 3 3/4" (MIN: 4" LONG)
MIN OF 2 1/2" OF THREADS TO BE ENGAGED INTO WOOD
WOOD: (3) 2X 4 1/2" MIN.
EDGE DISTANCE: 2" MIN.
END DISTANCE: 3 1/2" MIN.

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA–No.** 23–0707.02
**Approval Date** 10/05/2023
**By**
**Miami–Dade Product Control**

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/12 | |
| CAD DRAWING NO.: USF/FJ–1001 | B |

TITLE: USF/FJ 04–24 INSTALLATION SHEET 11 OF 14

ANCHORAGE INTO CONCRETE:
USE 3/8" DIA. KWIK BOLT TZ2 WEDGE ANCHOR
304 STAINLESS STEEL
EFFECTIVE EMBEDMENT DEPTH: 2" MIN.
NOMINAL EMBEDMENT: 2.5" MIN.
INSTALL HOLE DEPTH: 2.75" MIN.
EDGE DISTANCE: 6" MIN.
SPACING: 12" MIN.
MIN. SLAB THICKNESS: 4" – NORMAL WT., CRACKED
CONCRETE COMPRESSIVE STRENGTH: F'C= 3,000 PSI
**INSTALL PER MANUFACTURER'S INSTRUCTIONS**
(HAMMER DRILLED HOLE, INSTALLATION CONDITION: DRY)

ANCHORAGE INTO STEEL:
USE 5/16" DIA, S.S. FASTENERS
300 SERIES, S.S. COND. CW FY = 65 KSI
WITH 5/8" MIN. 300 SERIES S.S. WASHER
MIN: 3/16" THREAD ENGAGEMENT
INTO MIN. FY = 33KSI STEEL.
SPACING: 1" MIN.
EDGE DISTANCE: 1" MIN.
END DISTANCE: 1" MIN.

ANCHORAGE INTO WOOD:
USE 3/8" DIA, 316 S.S. LAG BOLTS (FY = 65 KSI)
S. PINE (G = 0.55 MIN) – PREDRILL AS RECOMMENDED
PENETRATION = 2 3/4" (MIN: 3" LONG)
MIN OF 2" OF THREADS TO BE ENGAGED INTO WOOD
WOOD: (2) 2X 3" MIN.
SPACING: 1 7/8" MIN.
EDGE DISTANCE: 1 1/2" MIN.
END DISTANCE: 2 5/8" MIN.


**RICE**
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Phone: (920) 617-1042
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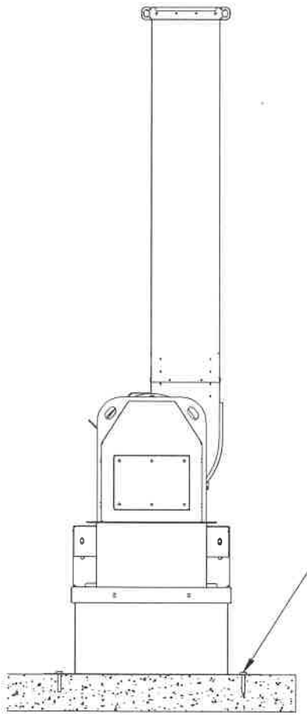
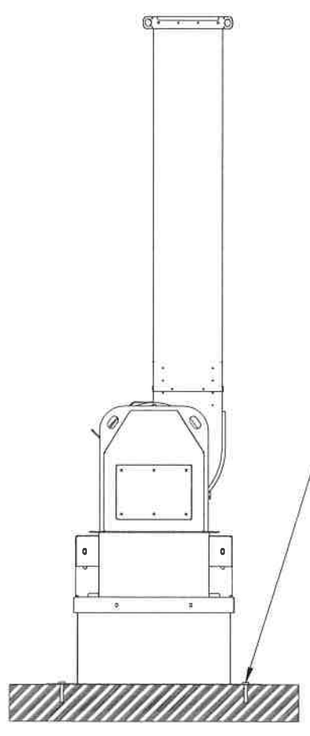
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

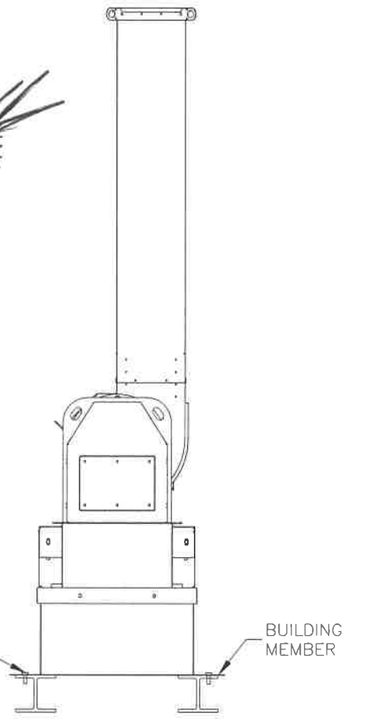

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
AUG 30 2023



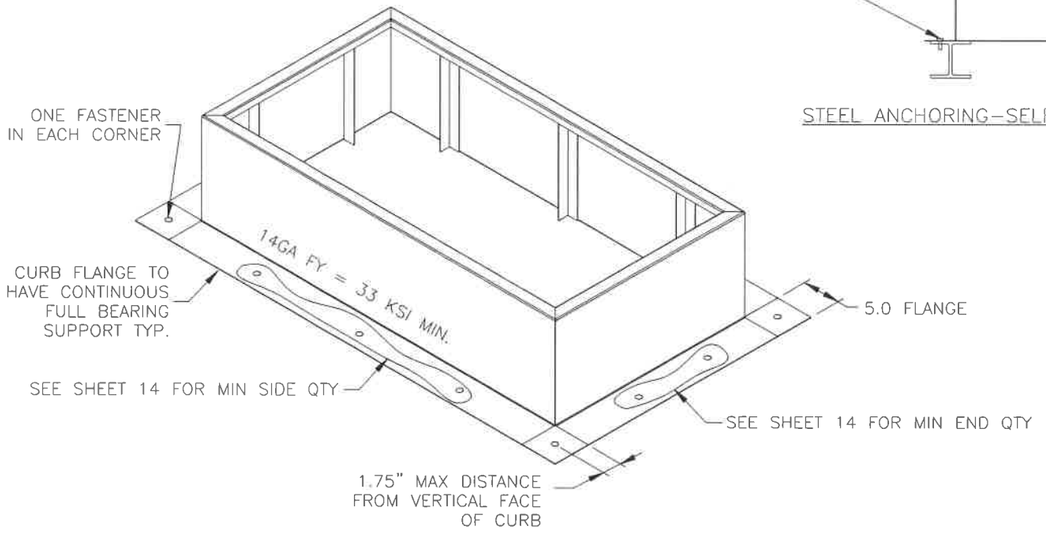
CONCRETE DECK ANCHORING



TIMBER ANCHORING




STEEL ANCHORING–SELF DRILL/TAP FASTENERS



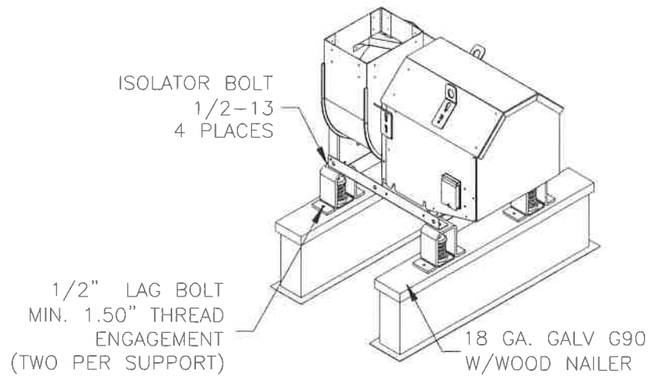

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

SEE SHEET 14 FOR ANCHOR QTY

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-1001 | B |

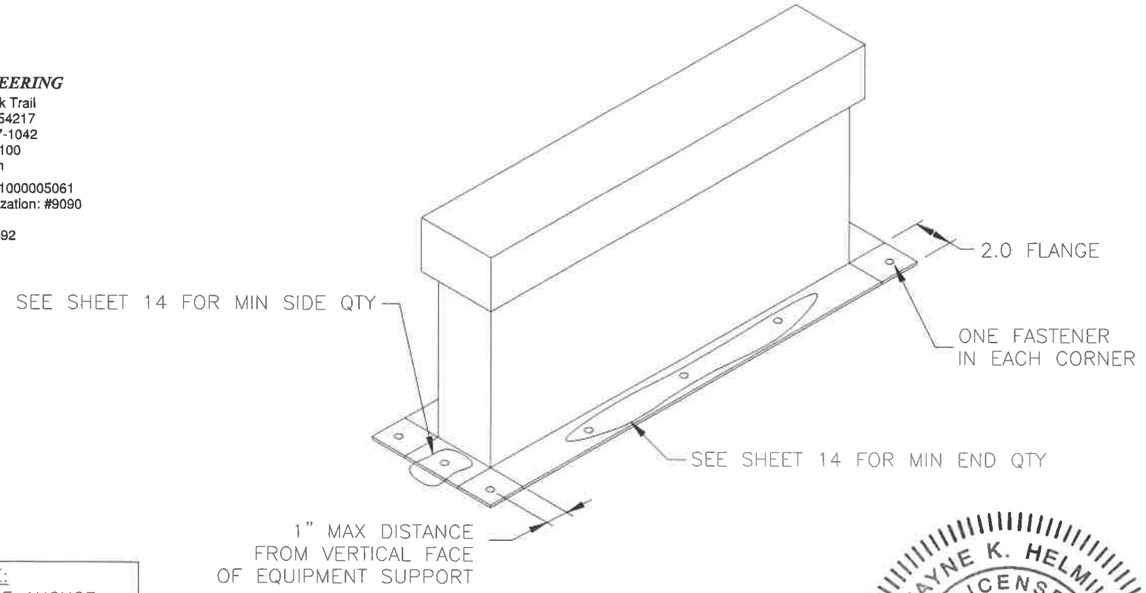
TITLE:
USF/FJ 04-24
CURB INSTALLATION
SHEET 12 OF 14

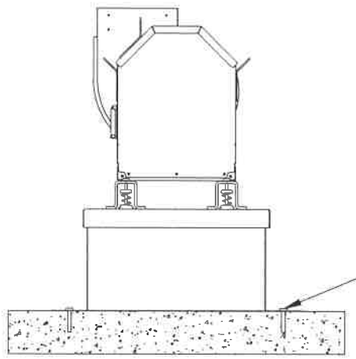



EQUIPMENT SUPPORT ANCHORING

**RICE**
*ENGINEERING*
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

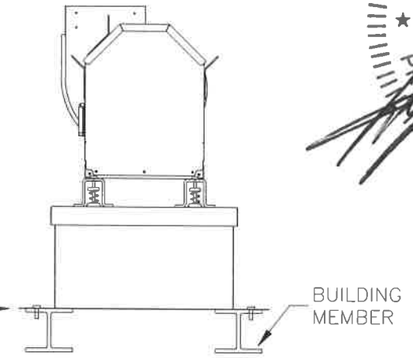


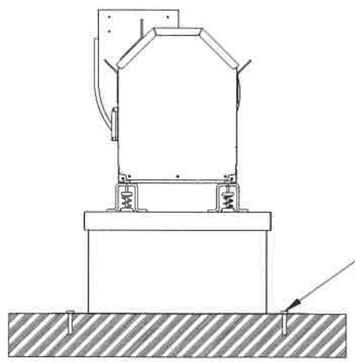
CONCRETE DECK ANCHORING

ANCHORAGE INTO CONCRETE:
USE 3/8" DIA. KWIK BOLT TZ2 WEDGE ANCHOR
304 STAINLESS STEEL
EFFECTIVE EMBEDMENT DEPTH: 2" MIN.
NOMINAL EMBEDMENT: 2.5" MIN.
INSTALL HOLE DEPTH: 2.75" MIN.
EDGE DISTANCE: 3" MIN.
SPACING: 6" MIN.
MIN. SLAB THICKNESS: 4" - NORMAL WT., CRACKED
CONCRETE COMPRESSIVE STRENGTH: F'C= 3,000 PSI
**INSTALL PER MANUFACTURER'S INSTRUCTIONS**
(HAMMER DRILLED HOLE, INSTALLATION CONDITION: DRY)

ANCHORAGE INTO STEEL:
USE 5/16" DIA, S.S. FASTENERS
300 SERIES, S.S. COND. CW FY = 65 KSI
WITH 5/8" MIN. 300 SERIES S.S. WASHER
MIN: 3/16" THREAD ENGAGEMENT
INTO MIN. FY = 33KSI STEEL.
SPACING: 1" MIN.
EDGE DISTANCE: 1" MIN.
END DISTANCE: 1" MIN.




STEEL ANCHORING-SELF DRILL/TAP FASTENERS



TIMBER ANCHORING

ANCHORAGE INTO WOOD:
USE 1/2" DIA, 316 S.S. LAG BOLTS (FY = 65 KSI)
S. PINE (G=0.55 MIN) - PREDRILL AS RECOMMENDED
PENETRATION = 2 3/4" (MIN: 3" LONG)
MIN OF 2" OF THREADS TO BE ENGAGED INTO WOOD
WOOD: (2) 2X 3" MIN.
SPACING: 2 1/2" MIN.
EDGE DISTANCE: 2" MIN.
END DISTANCE: 3 1/2" MIN.

**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**


SEE SHEET 14 FOR ANCHOR QTY

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

| | |
|---|---|
| TITLE | USF/FJ 04-24 EQUIP SUPP INSTALLATION SHEET 13 OF 14 |
| DRAWN BY | MATTSON_J |
| DATE | 05/2023 |
| SUPERSEDES | |
| SCALE | 1/10 |
| ECO | |
| ENG. REF. | NOA TESTING |
| CAD DRAWING NO. | B USF/FJ-1001 |

MINIMUM QUANTITY OF CURB ANCHORS

| With Stack, 40 PSF Rating | UNIT | Concrete Deck Anchoring | | | | Steel Anchoring | | | | Timber Anchoring | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Curb Cap | | w/Inlet Box | | Curb Cap | | w/Inlet Box | | Curb Cap | | w/Inlet Box | |
| | | END | SIDE | END | SIDE | END | SIDE | END | SIDE | END | SIDE | END | SIDE |
| | *USF/FJ-04,06,08,10 | 2 | 2 | 1 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 3 |
| | *USF/FJ-04,06,08,12 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 |
| | USF/FJ-13 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| | USF/FJ-15 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| | USF/FJ-16 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 2 | 3 |
| | USF/FJ-18 | 2 | 3 | 2 | 3 | 3 | 4 | 2 | 4 | 3 | 3 | 2 | 4 |
| | USF/FJ-20 | 2 | 3 | 2 | 3 | 3 | 4 | 2 | 4 | 3 | 4 | 2 | 4 |
| | USF/FJ-22 | 2 | 3 | 2 | 3 | 3 | 4 | 2 | 4 | 3 | 4 | 2 | 4 |
| | USF/FJ-24 | 3 | 4 | 2 | 4 | 3 | 4 | 2 | 5 | 4 | 5 | 3 | 5 |

*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)

| No Stack, 100 PSF Rating | UNIT | Concrete Deck Anchoring | | | | Steel Anchoring-Thru Bolts | | | | Timber Anchoring | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Curb Cap | | w/Inlet Box | | Curb Cap | | w/Inlet Box | | Curb Cap | | w/Inlet Box | |
| | | END | SIDE | END | SIDE | END | SIDE | END | SIDE | END | SIDE | END | SIDE |
| | *USF/FJ-04,06,08,10 | 2 | 2 | 1 | 3 | 2 | 3 | 1 | 4 | 2 | 3 | 1 | 4 |
| | *USF/FJ-04,06,08,12 | 2 | 2 | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 3 | 1 | 4 |
| | USF/FJ-13 | 2 | 3 | 1 | 4 | 3 | 3 | 2 | 5 | 2 | 3 | 2 | 4 |
| | USF/FJ-15 | 2 | 3 | 2 | 4 | 3 | 4 | 2 | 5 | 3 | 3 | 2 | 5 |
| | USF/FJ-16 | 2 | 3 | 2 | 5 | 3 | 4 | 2 | 6 | 3 | 4 | 2 | 5 |
| | USF/FJ-18 | 3 | 4 | 2 | 5 | 3 | 5 | 2 | 7 | 3 | 5 | 2 | 6 |
| | USF/FJ-20 | 3 | 5 | 2 | 6 | 3 | 6 | 2 | 7 | 3 | 5 | 2 | 7 |
| | USF/FJ-22 | 3 | 5 | 2 | 6 | 4 | 7 | 3 | 8 | 4 | 6 | 2 | 7 |
| | USF/FJ-24 | 4 | 6 | 2 | 7 | 5 | 7 | 3 | 9 | 4 | 7 | 4 | 10 |

MINIMUM TOTAL ANCHORS PER SYSTEM = (END + SIDE) x2 + 4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Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

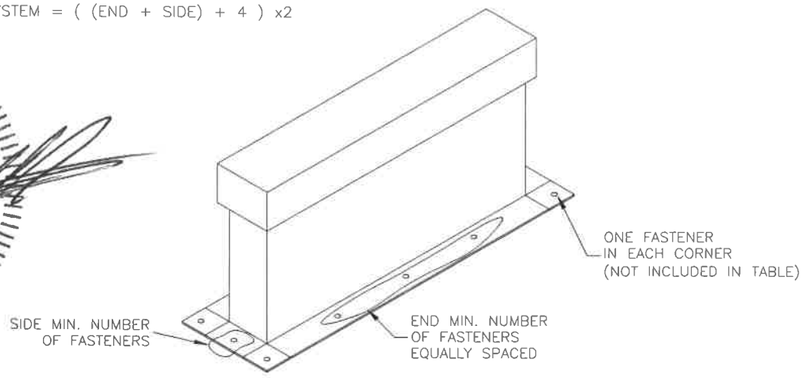

MINIMUM QUANTITY OF EQUIPMENT SUPPORT ANCHORS (PER SUPPORT)

| No Stack, 40 PSF Rating | UNIT | Concrete Deck Anchoring | | Steel Anchoring | | Timber Anchoring | |
|---|---|---|---|---|---|---|---|
| | | END FASTENERS | SIDE FASTENERS | END FASTENERS | SIDE FASTENERS | END FASTENERS | SIDE FASTENERS |
| | *USF/FJ-04,06,08,10 | 1 | 2 | 1 | 3 | 1 | 4 |
| | *USF/FJ-04,06,08,12 | 1 | 2 | 1 | 3 | 1 | 4 |
| | USF/FJ-13 | 1 | 3 | 1 | 3 | 1 | 4 |
| | USF/FJ-15 | 1 | 3 | 1 | 4 | 1 | 4 |
| | USF/FJ-16 | 1 | 4 | 1 | 5 | 1 | 4 |
| | USF/FJ-18 | 1 | 4 | 1 | 6 | 1 | 4 |
| | USF/FJ-20 | 1 | 5 | 1 | 6 | 1 | 5 |
| | USF/FJ-22 | 1 | 6 | 2 | 8 | 1 | 6 |
| | USF/FJ-24 | 1 | 7 | 2 | 10 | 1 | 7 |

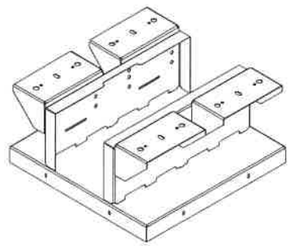
*SIZES USF/FJ-04,06,08 WILL UTILIZE EITHER USF/FJ-10 OR USF/FJ-12 VALUES & DIMENSIONS (DEPENDING ON PERFORMANCE)

MINIMUM TOTAL FASTENERS PER EQUIPMENT SUPPORT = (END + SIDE) + 4
MINIMUM TOTAL ANCHORS PER SYSTEM = ( (END + SIDE) + 4 ) x2

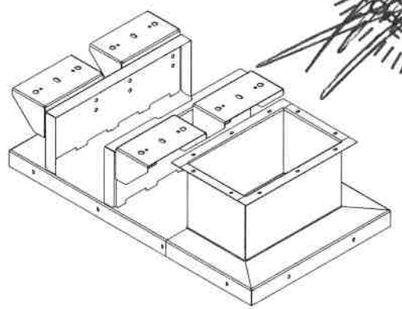
WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER
AUG 30 2023



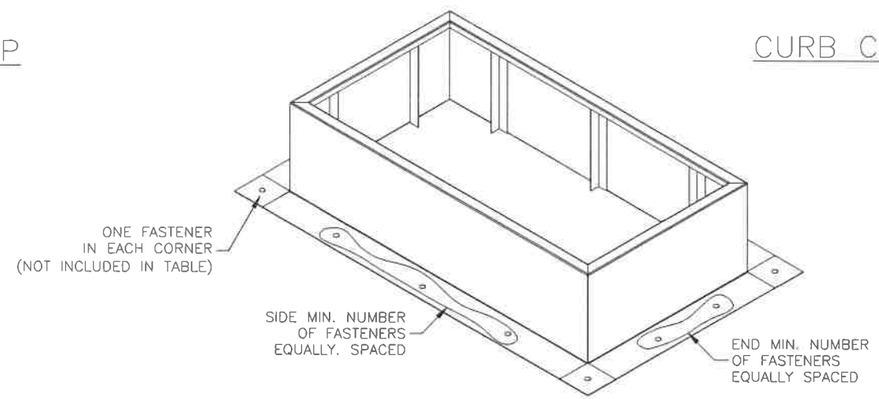

EQUIPMENT SUPPORT
MOUNTING REQUIREMENTS



CURB CAP



CURB CAP W/ INLET BOX




CURB MOUNTING REQUIREMENTS


SEE SHEET 12 FOR CURB INSTALLATION REQUIREMENTS
SEE SHEET 13 FOR EQUIPMENT SUPPORT INSTALLATION REQUIREMENTS


**PRODUCT APPROVED**
**as complying with the Florida Building Code**
**NOA-No.** 23-0707.02
**Approval Date** 10/05/2023
**By**
**Miami-Dade Product Control**

GREENHECK
P.O.BOX 410 SCHOFIELD, WISCONSIN 54476-0410

| | |
|---|---|
| DRAWN BY: MATTSON_J | ECO: |
| DATE: 05/2023 | ENG. REF.: NOA TESTING |
| SUPERSEDES: | |
| SCALE: 1/10 | |
| CAD DRAWING NO.: USF/FJ-1001 | B |

TITLE: USF/FJ 04-24 CURB/EQUIPMENT SUPP FASTENER QTY SHEET 14 OF 14