

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)

BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

PRODUCT CONTROL SECTION
11805 S.W. 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315–2590, F (786) 315–2599
www.miamidade.gov/economy

MIAMI-DADE COUNTY, FLORIDA

F & L Aluminum Parts, Inc. 2087 N Powerline Road, Ste 1 Pompano Beach, Florida 33069

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: Aluminum Stands for Rooftop Equipment

APPROVAL DOCUMENT: Drawing No. 23-242, titled "Aluminum Stands for Rooftop Equipment", sheets 1 through 10 of 10, with latest revision date 11/15/2023 prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: None

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 revises and renews NOA No. 20-0720.09 and consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by Sifang Zhao, P. E.



5,2. 01/16/2024

NOA No. 23-1206.01 Expiration Date: May 15, 2029 Approval Date: January 04, 2024

Page 1

F & L Aluminum Parts, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. 23-242, titled "Aluminum Stands for Rooftop Equipment", sheets 1 through 10 of 10, with latest revision date 11/15/2023 prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. Structural analysis and calculations, complying with FBC-2023, 8th edition, submitted, sheets 1 through 116 of 116, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E. on 10/30/2023.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement of conformance complying with FBC-2023, 8th edition, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E. on 10/30/2023.

G. OTHERS

1. Notice of Acceptance No. **20-0720.09**, issued to F & L Aluminum Parts, Inc., for their "Aluminum Stands for Rooftop Equipment.", approved on 08/20/2020 and expiring on 05/15/2024.

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Sifang Zhao, P. E.
Product Control Examiner
NOA No. 23-1206.01
Expiration Date: May 15, 2029
Approval Date: January 04, 2024

PRODUCT APPROVAL FOR ALUMINUM STANDS FOR ROOF TOP EQUIPMENT

- 1- THIS EQUIPMENT UNIT STAND SYSTEM SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D) HAS BEEN VERIFIED FOR CODE COMPLIANCE IN ACCORDANCE WITH THE 2023 (8th EDITION) OF THE FLORIDA BUILDING CODE, FOR USE WITHIN THE HIGH VELOCITY HURRICANE ZONE (HVHZ). DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED SEPARATELY ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE USING ASD METHODOLOGY, IN ACCORDANCE WITH ASCE 7-22 AND SECTIONS 1616.1, 1620.1, 1620.6 OF THE FLORIDA BUILDING CODE, AND SHALL BE LESS THAN OR EQUAL TO THE LATERAL AND UPLIFT DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
- 2- THE ARCHITECT/ENGINEER OF RECORD FOR THE EXISTING STRUCTURE THAT WILL SUPPORT THESE ALUMINUM STANDS SHALL BE RESPONSIBLE FOR ITS INTEGRITY AND SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND THE SUPERIMPOSED LOADS (ASD) REF "REACTION SCHEDULE" INDICATED ON SHEET 5, WHERE REACTION FORCES ARE LISTED FOR USE WITH EXISTING STRUCTURE. DESIGN PROFESSIONAL OF RECORD SHALL VERIFY APPLICABILITY AND/OR ADDITIONAL FACTORS FOR USE WITH EXISTING STRUCTURE VERIFICATION.
- 3- STAND SHALL BE INSTALLED WITH MINIMUM CLEAR HEIGHT AS SPECIFIED IN THE ABOVE-NOTED BUILDING CODE. "STAND HEIGHT" AS USED HEREIN IS NOT NECESSARILY EQUIVALENT TO "STAND CLEAR HEIGHT" AS SPECIFIED IN THE BLDG CODE. STANDS SHALL BE INSTALLED WITH A MINIMUM CLEAR HEIGHT IN ACCORDANCE WITH SECTION 1522 TABLE 1522.3 OF THE FLORIDA BUILDING CODE.
- 4- VIBRATION ISOLATOR PADS SHALL BE PROVIDED BY OTHERS BETWEEN UNITS & STAND.
- 5- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT FASTENING AS SHOWN HEREIN WILL NOT VOID THE EQUIPMENT MANUFACTURER'S WARRANTY, ESPECIALLY WHERE UNITS ARE INSTALLED WITH OVERHANG PAST RAIL (SEE TIE-DOWN DETAILS). STRUCTURAL ADEQUACY OF EQUIPMENT FOR WIND RESISTANCE IS NOT PART OF THIS APPROVAL AND MUST BE VERIFIED SEPARATELY.
- 6- ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS. ALL MECHANICAL SPECIFICATIONS (CLEAR SPACE, TONNAGE, ETC.) SHALL BE AS PER MANUFACTURER RECOMMENDATIONS AMD ARE THE EXPRESS RESPONSIBILITY OF THE CONTRACTOR.
- 7- MAXIMUM DIMENSIONS AND WEIGHT OF MECHANICAL UNITS SHALL CONFORM TO SPECIFICATIONS STATED HEREIN. SEE SHEETS 5 AND 7 THRU 10 FOR LIMITATIONS.
- 8- ALL SCREWS & BOLTS SHALL BE AS SPECIFIED ON THIS DRAWING, AND SHALL COMPLY WITH SECTION 2411.3.3.4 OF THE FLORIDA BUILDING CODE.
- 9- ALL ALUMINUM EXTRUSIONS SHALL BE 6061-T6 ALLOY & TEMPER, UNLESS NOTED OTHERWISE. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS D 1.2 REQUIREMENTS, USING 5356 FILLER ALLOYS.
- 10- ALL EXISTING CONCRETE SUBSTRATE SHALL HAVE MINIMUM to COMPRESSIVE STRENGTH OF 3000 PSI AS VERIFIED BY OTHERS.
- 11- ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2020 ALUMINUM DESIGN MANUAL.
- 12- ENGINEER SEAL AFFIXED HERETO VALIDATE STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED ON THIS DOCUMENT.
- 13- WATER-TIGHTNESS OF EXISTING HOST SUBSTRATE SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR. CONTRACTOR SHALL ENSURE THAT ANY REMOVED OR ALTERED WATERPROOFING MEMBRANE IS RESTORED AFTER FABRICATION AND INSTALLATION OF STRUCTURE PROPOSED HEREIN. THIS ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY WATERPROOFING OR LEAKAGE ISSUES WHICH WAY OCCUR AS WATER-TIGHTNESS SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR.

- 14- (a) THIS P.A.D. (PRODUCT APPROVAL DOCUMENT) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.A.D.
- (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS P.A.D., PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
- (c) THIS P.A.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D.
- (e) ORIGINAL P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.
- 15- PRODUCT MANUFACTURER'S LABEL SHALL BE PLACED ON AN EXPOSED SURFACE OF STAND, AND SHALL COMPLY WITH SECTION 1703,5 OF THE FLORIDA BUILDING CODE.

CUEET #	INDEX
SHEET #	DESCRIPTION
1	GENERAL NOTES AND INDEX
2	BILL OF MATERIALS AND COMPONENTS; STANDARD & HEAVY SYSTEMS
3	ASSEMBLY DETAILS FOR STANDS: STANDARD & HEAVY SYSTEMS
4	STAND ASSEMBLY DETAILS (CONTINUED): STANDARD & HEAVY SYSTEMS
5	SCHEDULE NOTES/ANCHOR SCHEDULE/REACTION SCHEDULE: STANDARD & HEAVY SYSTEMS
6	EQUIPMENT UNIT TIE DOWN TO RAILS STANDS: STANDARD & HEAVY SYSTEMS
7	SCHEDULE FOR MAX. PRESSURE: STANDARD SYSTEM W/ 5"x5" BASE PLATE
8	SCHEDULE FOR MAX. PRESSURE RATING: STANDARD SYSTEM W/ 6"x6" BASE PLATE
9	SCHEDULE FOR MAX. PRESSURE: HEAVY SYSTEM W/ 5"x5" BASE PLATE
10	SCHEDULE FOR MAX. PRESSURE: HEAVY SYSTEM W/ 6"x6" BASE PLATE

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

ALUMINUM STANDS FOR ROOF

TOP EQUIPMENT

TOP EQUIPMENT

11/15/23

F&L ALUMINUM PARTS, INC.

DATE

23-242

DRAWNING NO

ER. M. DESCIENTION

TO DESCRIPTION

TO DESCRIPTIO

© 2023 TILTECO INC.

TILLIT TESTING & ENGINEERING COMPAINTS N.W. 36th. St., St., St., 205, VRGING RING. COMPAINTS N.W. 36th. St., St., 205, VRGING RING. COMPAINTS N.W. 36th. St., St., St., 205, VRGING LIGHT (SOS) THE COMPAINT (SOS) THE COMPAINTS N.W. TILL'S N. TILL'S N. P. P. F. FLORIDA LIC. # 44167

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-1206.01

CENS

No. 441

Expiration Date <u>05/15/2029</u>

By Miami-Dade Product Control

THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA

BILL OF MATERIALS:

COMPONENT No.	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES	Zone)
1.)	RAIL (I-BEAM)	2.50" X 1.375" X 3"	6061-T6 ALLOY	7	SUPPORT FOR ROOF TOP EQUIPMENT FIT AND ADJUSTED INTO 3	Sane)
2A	LARGE STRUT TUBING	1.75" X 1.75" X 0.093" @STD 2.00" X 2.00" X 0.093" @HVY	6061-T6 ALLOY	-	WIND BRACING COMPONENT WELDED TO 4 & BOLTED TO 6	elocity Hurricar
2B.	SMALL STRUT TUBING	1.50" X 1.50" X 0.125" @STD 1.75" X 1.75" X 0.125" @HVY	6061-T6 ALLOY	Ŧ	WIND BRACING COMPONENT WELDED TO 4 & BOLTED TO 4	(High Velo
3.)	TOP CHANNEL	2.00" X 0.563" X 2 ½" L	6061-T6 ALLOY		WELDED TO TOP OF 4 TO RECEIVE 1	1.00
(4.)	POST	1.90" O.D X 0.145" @STD	6061-T6 ALLOY	-	WELDED TO (5), (2A), (2B) & (3)	INUN
		1.90" O.D X 0.200" @HVY	Carrier S. J. W. Astalana,			ALUMINUM S
(5.)	BASE PLATE	5" X 5" X 1/4" OR 6" X 6" X 1/4"	6061-T6 ALLOY	-	WELDED TO 4 & ANCHORED TO EXISTING STRUCTURE (SEE SHEET 5 FOR SPECS.)	RIDA

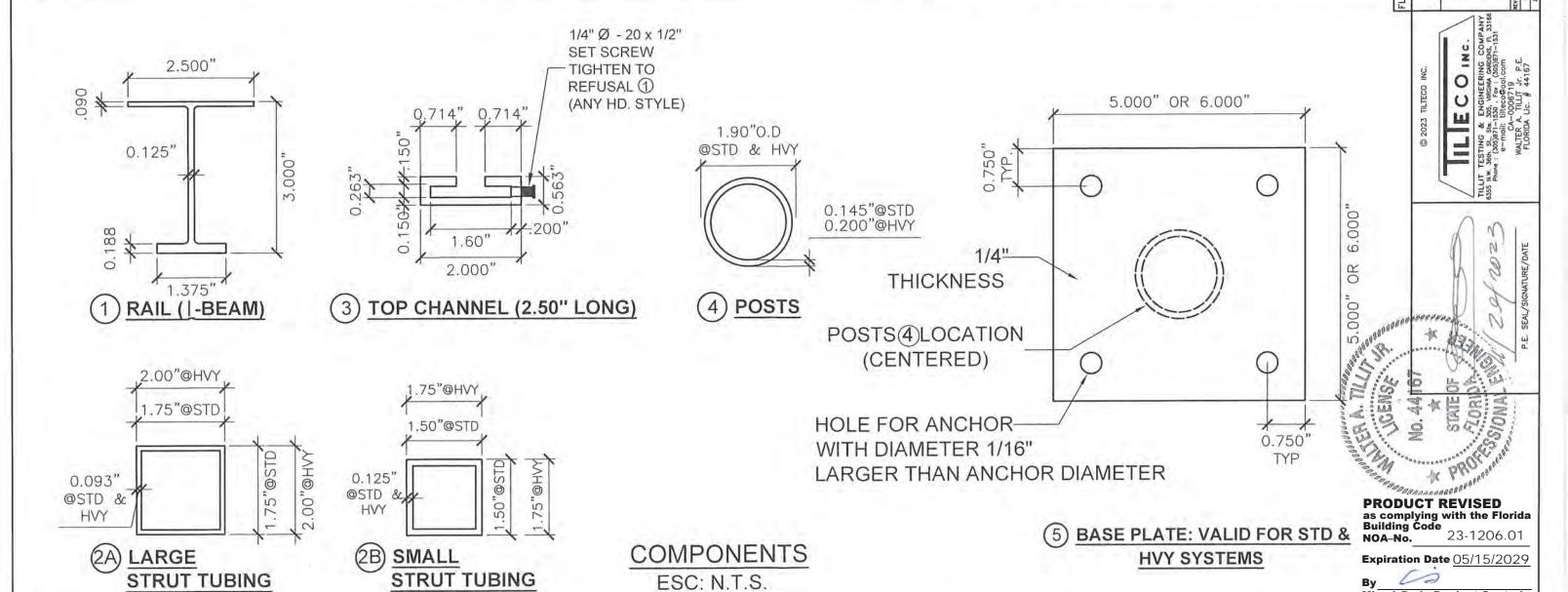
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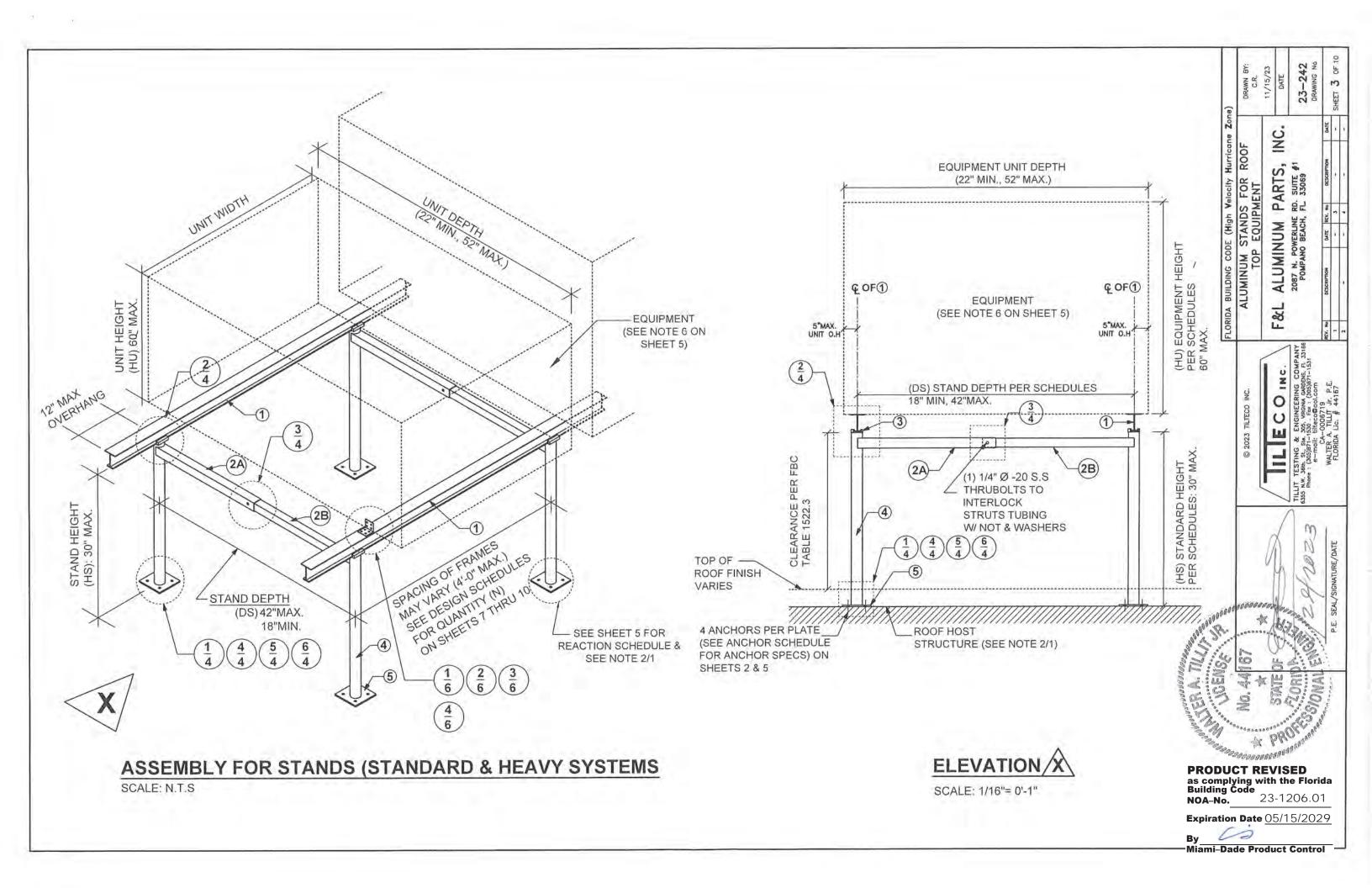
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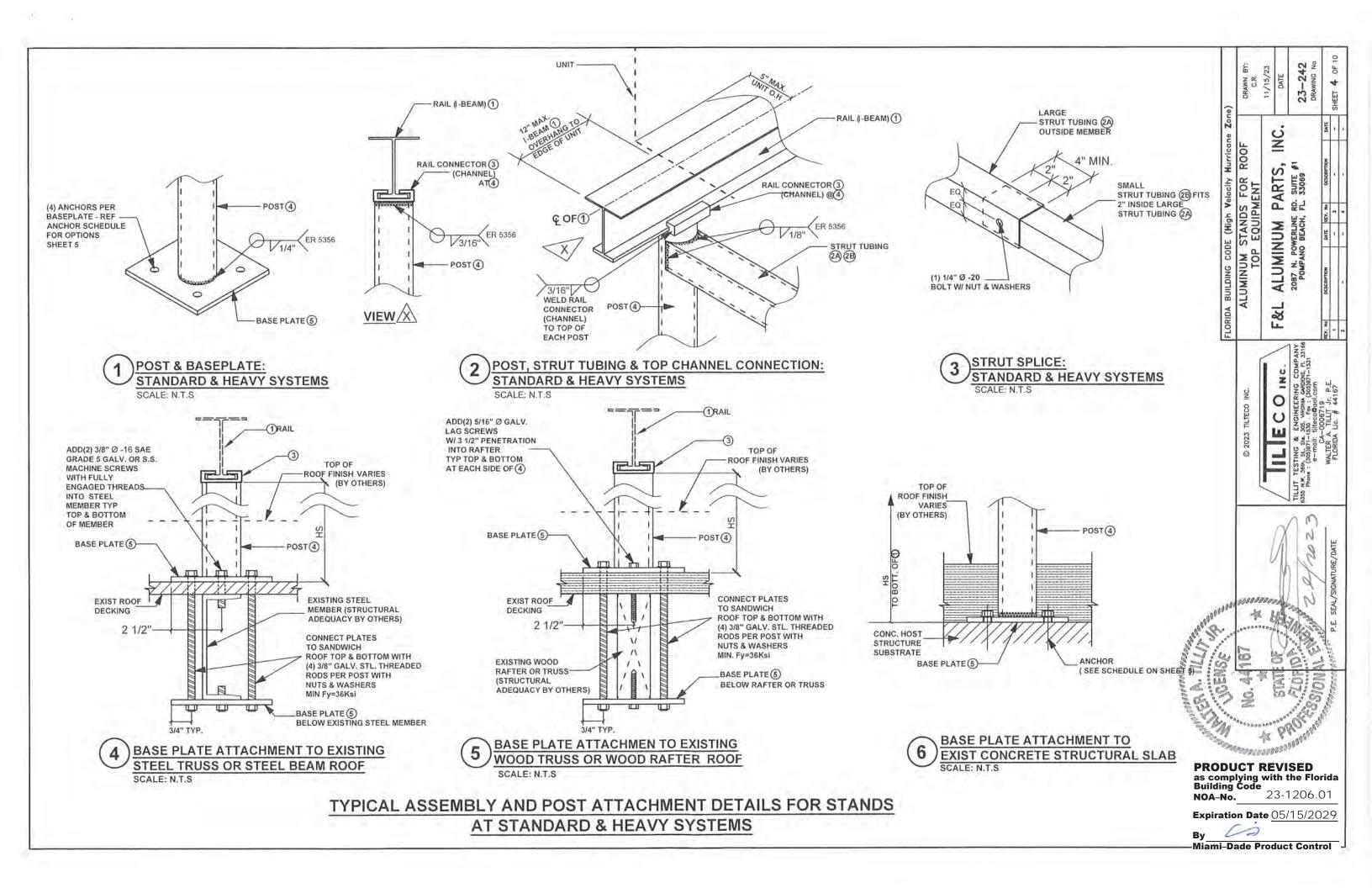
ALUMINUM PARTS, 2087 N. POWERLINE RD. SUITE #1

F&L

Miami-Dade Product Control







NOTES APPLICABLE TO SCHEDULES ON SHEETS 7 THRU 10

- 1. SCHEDULES ON SHEETS 7 THRU 10 PROVIDE MAXIMUM A.S.D LATERAL & UPLIFT WIND LOADS FOR EACH COMBINATION OF TOTAL UNIT FRONTAL AREA (AF), STAND DEPTH (DS), EQUIPMENT HEIGHT(HU), STAND HEIGHT (HS) AND NUMBER OF POST FRAMES (N) PER STAND, FOR STANDARD AND HEAVY SYSTEMS.
- 2. TOTAL FRONTAL AREA IS TOTAL AREA OF EQUIPMENT UNIT FACE PARALLEL TO RAIL① (EQUAL TO TOTAL SUM OF UNIT HEIGHT (IN) x UNIT WIDTH (IN) FOR ALL UNITS ON STAND), AS DEPICTED HEREIN.
- 3. UNIT HEIGHT (HU) INCHES INCLUDED IN SCHEDULE SHALL BE DEFINED AS FOLLOWS: AVERAGE HEIGHT OF ALL UNITS IF THE DIFFERENCE IN HEIGHT BETWEEN TWO ADJACENT UNITS DOES NOT EXCEED 8", OR MAX UNIT HEIGHT OF INSTALLATION IF THE ABOVE CONDITION IS NOT COMPLIED WITH. MAX. UNIT HEIGHT IS 60".
- 4. STAND HEIGHT (HS), INCHES, IS AS DEPICTED HEREIN, MEASURE FROM HOST STRUCTURE TO BOTTOM OF RAIL (1). VALID FOR STANDARD AMD HEAVY SYSTEMS.
- 5. "FRAMES" HERE DENOTES ASSEMBLAGE OF 2 POSTS ④ WITH STRUTS ②A PERPENDICULAR TO RAILS①, VALID FOR STANDARD AND HEAVY SYSTEMS.
- 6. EACH EQUIPMENT UNIT SHALL HAVE A MAXIMUM WEIGHT OF 500 lbs & A MIN.WEIGHT OF 75 LBS. SEE GENERAL NOTE 5 ON SHEET 1
- 7. SPACING OR CLEARANCE BETWEEN UNITS MAY VARY, BASED ON UNITS MANUFACTURER SPECS.
- 8. REFERENCE ANCHOR SCHEDULE BELOW FOR ALLOWABLE ANCHORS AND INSTALLATION CRITERIA, BASED ON SUBSTRATE AT ROOF.
- 9. EQUIPMENT UNITS SHALL BE ATTACHED TO RAILS (1) PER UNIT CONNECTION DETAILS ON SHEET 6. AND AS PER ACCOMPANYING NOTES BASED ON MANUFACTURER'S SPECS.

ANCHORS SCHEDULE

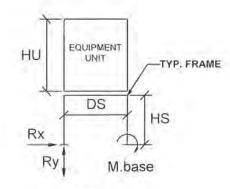
				SU	BSTR	ATE					
C	ONCR	ETE	Δ	S	TEEL	Δ		W	OOD	Δ	
MANUFACTURER	DIAMETER	MIN. E.D	MIN. EMBD'T	MANUFACTURER	DIAMETER	MIN. E.D	MIN. EMBO'T	MANUFACTURER	DIAMETER	MIN. E.D	MIN. EMBD"
DEWALT	3/8"	5"	2 1/2"	DEWALT	5/16"-24	5/8"	FULL THREAD ENGAGEMENT	N/A	3/8"	1 1/2"	3 1/2"
SCREW	BOLT OR	POWER	RBOLT	100000000000000000000000000000000000000	SHER HEA		T.A. 7.77	1 - 1	NDS LAG	SCREWS	5
ELCO	3/8"	5"	2 1/2"								
	CONFL	EX									

- ∧ NOTES: 1 CONCRETE TO BE MIN f'c = 3 KSI
 - 2 STEEL TO BE MIN ASTM A-36, 1/4" MIN THICK.
 - 3 WOOD TO BE G=0.55 SOUTHERN YELLOW PINE # 2, MINIMUM 4" THICK.

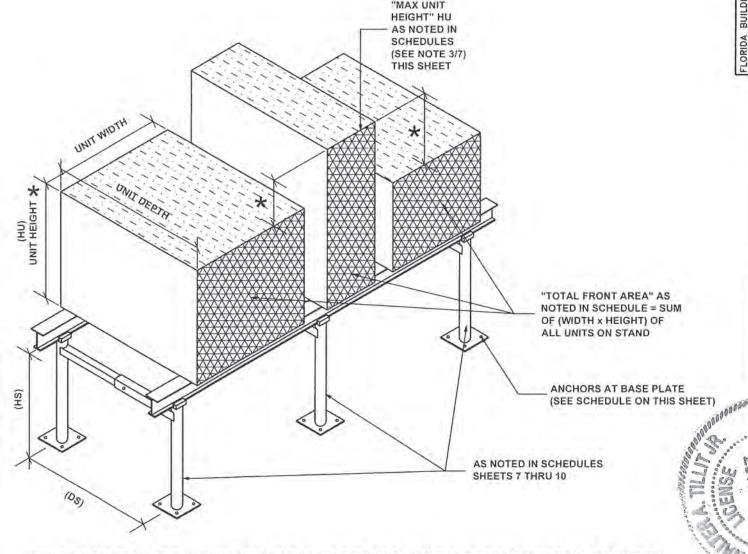
**REACTION SCHEDULE: SEE NOTE 2/1

REACTION	REACTION	REACTION
AT BASE	AT BASE	AT BASE
Rx	Ry	M.base
230 LB	520 LB	3.4 K-IN

** REACTIONS CORRESPOND TO THE WORST CASE FORCE APPLIED AT BASE PLATE FOR ANY COMBINATION OF DS. HU AND HS DIMENSIONS FOR STANDARD & HEAVY SYSTEMS



SIDE VIEW



UNIT SIZES & CONFIGURATION (FOR USE WITH DESIGN SCHEDULES)

* SEE NOTE 3 THIS SHEET

PRODUCT REVISED as complying with the Florida Building Code 23-1206.01 NOA-No.

23-242 DRAWING NO

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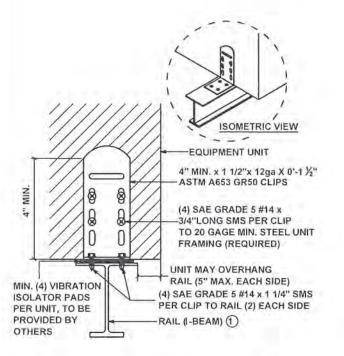
ALUMINUM PARTS,

F&L

Expiration Date 05/15/2029

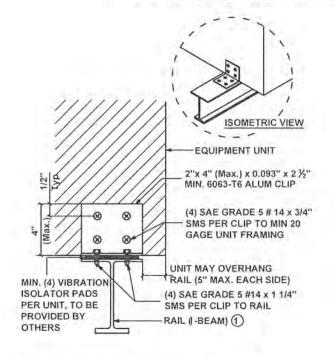
Miami-Dade Product Control

GENERIC * EQUIPMENT UNIT ANCHORAGE TO RAIL 1: *SEE NOTES BELOW FOR ADDITIONAL GUIDELINES FOR TIE DOWN OF EQUIPMENT TO STANDS: VALID FOR STANDARD & HEAVY SYSTEMS



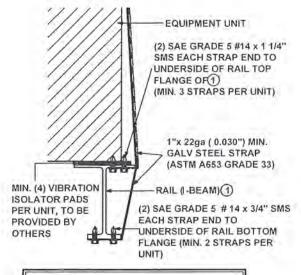
TYPICAL CONNECTION:
-MINIMUM (4) PER UNIT-

1 CLIPPED UNIT CONNECTION
SCALE: N.T.S ELEVATION



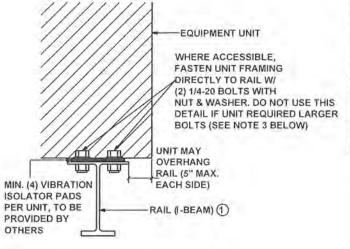
TYPICAL CONNECTION:
-MINIMUM (4) PER UNIT-

2 CLIPPED UNIT CONNECTION
SCALE: N.T.S ELEVATION



TYPICAL CONNECTION:
-MINIMUM (4) PER UNIT-

3 STRAPPED UNIT CONNECTION
SCALE: N.T.S ELEVATION



TYPICAL CONNECTION:
-MINIMUM (4) PER UNIT-

4 DIRECT UNIT CONNECTION SCALE: N.T.S ELEVATION

ADDITIONAL NOTES WITH GUIDELINES AND REFERENCES FOR PERFORMING UNIT'S TIE DOWN TO STANDS:

- (1) IF EQUIPMENT TO BE INSTALLED IS MANUFACTURED BY CARRIER, USE THEIR TECHNICAL EVALUATION REPORT, AS ENGINEERED FOR TIE DOWN PROCEDURES.
- (2) IF EQUIPMENT TO BE INSTALLED IS MANUFACTURED BY RHEEM, USE THEIR NOA FOR TIE DOWN PROCEDURES.
- (3) FOR UNITS REQUIRED TIE DOWN BOLTS LARGER THAN 1/4 Ø. RAIL SHALL NOT BE USED. SPECIAL ENGINEERING WILL BE APPLICABLE IN THAT CASE.
- (4) ANY OTHER CASE OF TIE DOWN NOT ADDRESSED HERE SHALL BE MADE THRU SPECIAL ENGINEERING.

PE SEAL/SIGNATURE/DATE

BENDUCT REFAIRE & ENGINEERING & EN

23-242 DRAWING NO

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PARTS,

ALUMINUM

F&L

Expiration Date 05/15/2029

By_______ Miami-Dade Product Control

STANDARD SYSTEM

ASD DESIGN LATERAL (WL) & UPLIFT (WU) PRESSURE RATING (psf) SCHEDULE GIVEN A STAND
WITH STAND'S DEPTH (DS), TOTAL EQUIPMENT UNIT FRONT AREA (AF), EQUIPMENT UNIT HEIGHT

(HU), STAND HEIGHT (HS) AND NUMBER OF REQUIRED FRAMES (N)

W/ 5" X 5" BASE PLATE AT POSTS

DS ≥18"
MAX
UP TO 42"

UP I	0 42"																			
AF	HU	HS	N =	= 2	N=	= 3	N =	= 4	N=	= 5	N =	- 6	N=	= 7	N =	8 =	N=	= 9	N =	= 10
MAX (IN ²)	MAX (IN)	MAX (IN)	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU
576	24	18 24	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197
		30 18	215 188	170 148	250 210	197 166	250 250	197 197												
864	28	24 30	185 143	146 113	210 210	166 166	250 250	197 197												
1152	32	18 24	147 134	116 106	169 169	133	241	191	250 250	197 197										
1440	36	30 18 24	107 120 107	85 95 85	161 142 142	127 112 112	225 201 201	170 159 159	250 250 250	197 197 197										
		30 18	86	68 79	129	102	172 169	136 133	215 218	170 172	250 250	197 197								
1728	36	24 30	90 72	71 57	119 107	94 85	169 143	133 114	218 179	172 141	250 220	197 170	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197
2304	36	18 24 30	75 67	59 53	91 91 81	72 72 64	128 128 107	101 101 85	165 165 134	130 130 106	201 201 161	159 159 127	238 235 188	188 186 148	250 250 215	197 197 170	250 250 242	197 197 191	250 250 250	197 197 197
2880	36	18 24			74 74	58 58	103	82 82	133	105 105	162 161	128 127	191	152 148	221 215	174 170	250 242	197 191	250 250	197 197
		30 18			64	51	86 86	68 68	107 110	85 87	129 133	102 105	150 157	119 124	172 181	136 143	193 204	153 160	215 228	170 180 ,
3600	42	24 30					86 69	68 54	107 86	85 68	129 103	102 81	150 120	119 95	172 138	136 109	193 155	153 122	215 172	170 §
4320	48	18 24					72 72	57 57	92 90	73 71	111	88 85 68	131 126 100	103 99 79	150 143 115	119 113	170 162	134 127 102	189 179	149
5760	48	30 18 24							72 70 67	57 55 53	86 85 81	67 64	99 94	78 74	115 114 107	90 90 85	129 128 121	101	143 143 134	113 113 106
	TALK A	30 18					V .				64	51	75 76	59 60	86 87	68 69	97 98	76 78	107 109	85 86
7200	60	24 30											75	59	86 69	68 54	97 77	76 61	107 86	85 68

© 2023 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY SASS NW. 36th, 35th,
© 2023 TILTECO INC. ALUMINUM STANDS ALUMINUM STANDS TILLIT TESTING & ENGINEERING COMPANY 63555 NW. 26h. 35t. 58a. 26. Visionia Geodosi.com CA-0006719 WALTER TILLIT UP EQUIPME E-moil: tilte-o@ooi.com CA-0006719 WALTER TILLIT UP. P.E. 1
© 2023 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY SASS NW. 36th, 3.5, 584. 305, vincinu, curdens, company e-moil: titleco@ool.com CA-000677-1331 EX. No. 100577-1531 E
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PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-1206.01

Expiration Date 05/15/2029

By Miami-Dade Product Control

STANDARD SYSTEM

ASD DESIGN LATERAL (WL) & UPLIFT (WU) PRESSURE RATING (psf) SCHEDULE GIVEN A STAND
WITH STAND'S DEPTH (DS), TOTAL EQUIPMENT UNIT FRONT AREA (AF), EQUIPMENT UNIT HEIGHT

(HU), STAND HEIGHT (HS) AND NUMBER OF REQUIRED FRAMES (N)

W/ 6" X 6" BASE PLATE AT POSTS

DS ≽18" MAX UP TO 42'

UP TO	O 42"																			
AF	HU	HS	N=	= 2	N=	= 3	N=	= 4	N=	= 5	N =	- 6	N=	- 7	N =	- 8	N=	= 9	N=	= 10
MAX (IN ²)	MAX (IN)	MAX (IN)	WL	WU																
576	24	18 24 24	250 250 215	197 197 170	250 250 250	197 197 197														
864	28	18 24 30	188 179 143	148 141 113	210 210 210	166 166 166	250 250 250	197 197 197												
1152	32	18 24 30	147 134 107	116 106 85	169 169 161	133 133 127	241 241 215	191 191 170	250 250 250	197 197 197										
1440	36	18 24 30	120 107 86	94 85 68	142 142 129	112 112 102	201 201 172	159 159 136	250 250 215	197 197 170	250 250 250	197 197 197								
1728	36	18 24 30	100 90 72	79 70 57	119 119 107	94 94 85	169 169 143	133 133 113	218 218 179	172 172 141	250 250 215	197 197 170	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
2304	36	18 24 30	75 67	59 53	91 91 81	72 72 64	128 128 107	101 101 85	165 165 134	130 130 106	201 201 161	159 159 127	238 238 188	188 188 148	250 250 215	197 197 170	250 250 250	197 197 197	250 250 250	197 197 197
2880	36	18 24 30			74 74 64	58 58 51	103 105 86	82 82 68	133 133 107	105 105 85	194 161 129	154 127 102	191 188 150	151 148 119	221 215 172	174 170 136	250 242 193	197 191 153	250 250 215	197 197 170
3600	42	18 24 30				01	86 86 69	68 68 54	110 107 86	87 85 68	133 129 103	105 102 81	157 150 120	124 119 95	181 172 138	143 136 109	204 193 155	161 153 122	228 215 172	180 170 136 136 136 1
4320	48	18 24 30					72 72	57 56	92 90 72	73 71 57	111 107 86	88 85 68	131 126 100	103 99 79	150 143 115	119 113 90	170 161 129	134 127 102	189 179 143	149 141 113
5760	48	18 24 30							70 67	55 53	85 81 64	67 64 51	99 94 75	78 74 59	114 107 86	90 85 68	128 121 97	101 95 76	143 134 107	113 106 85
7200	60	18 24 30									01		76 75	60 59	87 86 69	69 68 54	98 97 77	78 76 61	109 107 86	86 85 68

NC ALUMINUM PARTS, 2087 N. POWERLINE RD. SUITE #1 F&L

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-1206.01

Expiration Date 05/15/2029

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__Miami-Dade Product Control

HEAVY SYSTEM

ASD DESIGN LATERAL (WL) & UPLIFT (WU) PRESSURE RATING (psf) SCHEDULE GIVEN A STAND WITH STAND'S DEPTH (DS), TOTAL EQUIPMENT UNIT FRONT AREA (AF), EQUIPMENT UNIT HEIGHT (HU), STAND HEIGHT (HS) AND NUMBER OF REQUIRED FRAMES (N)

W/ 5" X 5" BASE PLATE AT POSTS

DS	≥18"
MA	≽18" X
UP	TO 42'

UP TO	O 42"																			
AF	HU	HS	N =	= 2	N=	= 3	N=	= 4	N=	= 5	N =	6	N =	7	N=	8 =	N=	= 9	N=	= 10
MAX (IN ²)	MAX (IN)	MAX (IN)	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU
576	24	18 24 30	250 250 230	197 197 182	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
864	28	18 24 30	227 185 156	179 146 123	250 250 218	197 197 172	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
1152	32	18 24 30	173 141 118	136 111 93	233 195 166	184 154 131	250 250 250	197 197 178	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
1440	36	18 24 30	139 113 95	110 89 75	193 159 135	152 125 106	250 215 182	197 170 144	250 250 230	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250 250	197 197 197
1728	36	18 24 30	116 94 79	92 74 62	157 132 113	124 105 89	219 180 152	173 142 120	250 227 192	197 179 151	250 250 250 231	197 197 182	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250 250	197 197 197	250 250 250 250	197 197 197
2304	36	18 24 30	87 70	69 56	119 100 85	94 79 67	165 135 114	130 107 90	209 170 144	165 135 114	250 250 174	197 162 137	250 241 203	197 190 160	250 250 232	197 197 184	250 250 250	197 197 197	250 250 250	197 197 197
2880	36	18 24 30	70	55	97 80 68	76 63 53	132 108 92	105 86 73	167 137 115	132 108 91	202 165 139	159 130 110	236 193 163	187 152 128	250 221 186	197 174 147	250 249 210	197 196 166	250 250 233	197 197 197 184
3600	42	18 24 30			79 65	62 51	107 88 74	85 70 59	135 110 93	107 87 73	163 133 112	129 105 88	191 155 131	150 122 103	218 178 150	172 140 118	246 200 169	194 158 133	250 222 187	197 176 148
4320	48	18 24 30					90 73	71 58	113 92 78	89 73 61	136 111 93	107 87 74	159 129 109	125 102 86	182 148 125	144 117 98	205 167 140	162 132 111	228 185 156	180 146 123
5760	48	18 24 30							85 69	67 55	102 83 70	81 66 55	119 97 82	94 77 65	137 111 94	108 88 74	154 125 106	122 99 83	171 139 117	135 110 93
7200	60	18 24 30									81 66	64 52	94 77 65	75 61 51	108 90 75	85 71 60	122 99 84	96 78 66	135 110 93	107 87 73

© 2023 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6235 NW. 366, 36, 25, 250, VINEM ARRIER INC. 2087 N. POWERUNE RD. SUITE #1 POMPANO BEACH, FL. 33069 #1 POMPANO B
© 2023 TILTECO INC. ALUMINUM STANDS FOR ROOF TOP EQUIPMENT TILLIT TESTING & ENGINEERING COMPANY 6235 N.W. 369, 312, 82, 303, WRATER A TILLIT UR. P.E. TOP EQUIPMENT F&L ALUMINUM PARTS, IN POWPANO BEACH, FL. 33069 WALTER A TILLIT UR. P.E. FLORIDA LIC. # 44167 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
FLORIDA BUILDING CODE (High Veit TOP EQUIPME TAILLY TESTING & ENGINEERING COMPANY E3SS N.W. 36b, 358, 305, 705, 706, 705, 707, 705, 707, 705, 707, 705, 707, 707
© 2023 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6335 N.W. 3661, 256. 262. Fear: (305)\$71-1530 Fe
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© 2023 TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 6335 Phone : (305)871–1530 Rec. Med 187 A 200006779 A 24167 A 200006779 A 24167 A 200006779
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PRODUCT REVISED as complying with the Florida Building Code
NOA-No. 23-1206.01

Expiration Date 05/15/2029

By ______ Miami-Dade Product Control

HEAVY SYSTEM

ASD DESIGN LATERAL (WL) & UPLIFT (WU) PRESSURE RATING (psf) SCHEDULE GIVEN A STAND WITH STAND'S DEPTH (DS), TOTAL EQUIPMENT UNIT FRONT AREA (AF), EQUIPMENT UNIT HEIGHT (HU), STAND HEIGHT (HS) AND NUMBER OF REQUIRED FRAMES (N) W/ 6" X 6" BASE PLATE AT POSTS

DS	≥18"
MA	X
	TO 42"

•	~																			
AF	HU	HS MAX (IN)	N = 2		N = 3		N = 4		N = 5		N = 6		N = 7		N = 8		N = 9		N = 10	
MAX (IN ²)	MAX (IN)		WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU	WL	WU
576	24	18 24 30	250 250 227	197 197 179	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
864	28	18 24 30	219 181 154	173 143 121	250 246 212	197 194 168	250 250 250 250	197 197 197	250 250	197 197 197	250 250 250 250	197 197 197	250 250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
1152	32	18 24	167 137	132 108	223 189	176 149	250 250	197 197	250 250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197	250 250	197 197
1440	36	30 18 24	117 135 111	92 106 87	163 184 154	128 143 122	221 250 210	175 197 165	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
1728	36	30 18 24	94 112 92	74 89 73	132 154 129	104 122 102	179 211 175	141 166 138	226 250 221	178 197 174	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
2304	36	30 18 24	78 84 69	62 66 55	110 116 97	87 92 77	150 159 132	118 125 104	189 201 167	149 158 132	227 250 201	180 192 158	250 250 235	197 197 185	250 250 250	197 197 197	250 250 250	197 197 197	250 250 250	197 197 197
2880	36	30 18 24	67	53	83 93 78	66 74 62	113 127 106	89 101 83	142 161 133	112 127 105	171 194 161	135 154 127	200 228 188	158 180 149	229 250 216	181 197 170	250 250 243	197 197 192	250 250 250	197 197 197
3600	42	30 18 24			67 76	53 60	90 103 86	71 81 68	114 131 108	90 103 85	137 157 130	108 124 102	160 184 152	127 145 120	184 211 174	150 166 137	207 238 196	163 188 154	230 250 218	182 197 172
4320	48	30 18 24					73 86 72	58 68 56	92 109 90	72 86 70	110 131 108	87 103 85	129 153 126	102 121 100	148 176 145	117 139 114	166 198 163	131 156 129	185 220 181	146 174 143
	48	30 18 24					14	00	77 82 68	60 65 53	92 99 81	73 78 64	108 115 95	85 91 75	123 132 109	97 104 86	139 149 123	109 117 97	154 165 136	122 131 108
5760		30 18							00	55	69 78	55 61	81 91	64 72	93 104	73 82	104 117	82 92	116 130	91 103
7200	60	24 30					1				69	51	75 64	59 51	86 73	68 58	97 82	76 65	108 92	85 72

(8	DRAWN BY: C.R.	11/15/23 DATE	23-242 DRAWING NO		SHEET 10 OF 10	
ne Zon		C.		DATE		
ocity Hurrican	OR ROOF	RTS. IN	SUITE #1 53069	носмымом		*
gh Velo	UM STANDS FOI TOP EQUIPMENT	PA	. F. 7.	REV. No	n	•
DE (His	STAN	NON	WERLIN BEACI	DATE REV. NO		-
FLORIDA BUILDING CODE (High Velocity Murricane Zone)	ALUMINUM STANDS FOR ROOF TOP EQUIPMENT	F&L ALUMINUM PARTS, INC.	2087 N. POWERLINE RD. SUITE #1 POMPANO BEACH, FL. 33069	DESCRIPTION		,
LORIDA		F.8		REV. No.		2
	© 2023 TILTECO INC.		TILLT TESTING & ENGINEERING COMPANY GSSS NW. 36th. 51, 5te. 205, VRGNM, GNRDDS, F. 33166 Phone ; (205)371 - 1530; Fr. ; (205)371 - 1531	TIAW	FLORIDA Lic. # 44167	

Building Code 23-1206.01

Expiration Date 05/15/2029

Miami-Dade Product Control