



MIAMI-DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION
 11805 SW 26 Street, Room 208
 Miami, FL 33175
 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)

Miro Industries, Inc.
844 South 430 West
Heber City, UT 84032

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: Mechanical Equipment Steel Stand

APPROVAL DOCUMENT: Drawing No. **21-42169**, titled "Mechanical Equipment Stand", sheets 1 and 2 of 2, dated 07/10/2021, prepared by Engineering Express, signed and sealed by Richard Neet, P.E. on 10/29/2021, bearing the Miami-Dade County Product Control approval stamp with the Notice of Acceptance number & approval date by 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 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.**



NOA No. 21-0830.02
Expiration Date: December 2, 2026
Approval Date: December 2, 2021
 Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **21-42169**, titled “Mechanical Equipment Stand”, sheets 1 and 2 of 2, dated 07/10/2021, prepared by Engineering Express, signed and sealed by Richard Neet, P.E. on 10/29/2021.

B. TESTS

1. None.

C. CALCULATIONS

1. Engineering design calculations, prepared by Engineering Express, date 10/29/2021, signed and sealed by Richard Neet, 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 Engineering Express, dated 08/14/2021, signed & sealed by Richard Neet, P.E.
2. Statement letter of no financial interest, issued by Engineering Express, dated 08/14/2021, signed & sealed by Richard Neet, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 21-0830.02
Expiration Date: December 2, 2026
Approval Date: December 2, 2021

MIRO INDUSTRIES, INC.

MECHANICAL EQUIPMENT STAND

RICHARD NEET, P.E.
PE# 86488 CA9885

10/29/2021

LICENSED PROFESSIONAL ENGINEER

No. PE. 86488

STATE OF FLORIDA

PROFESSIONAL ENGINEER

MAXIMUM ALLOWABLE DESIGN PRESSURES:

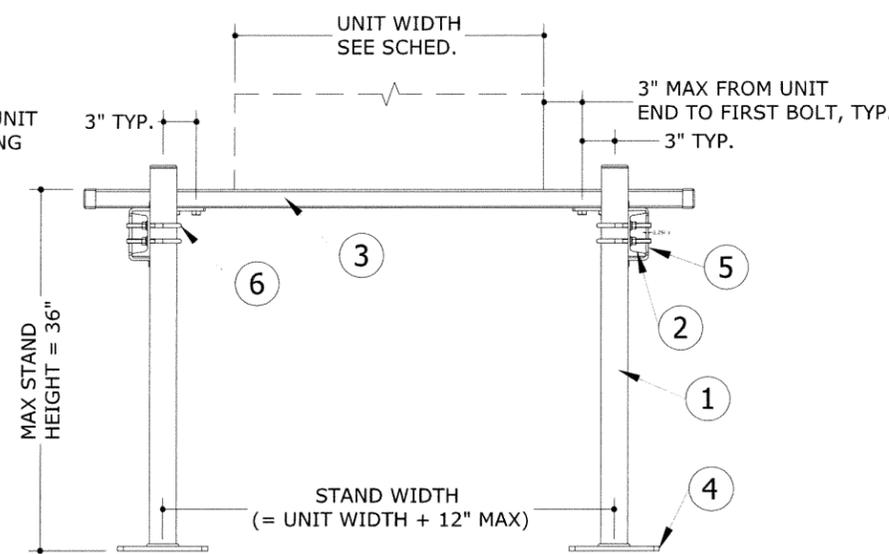
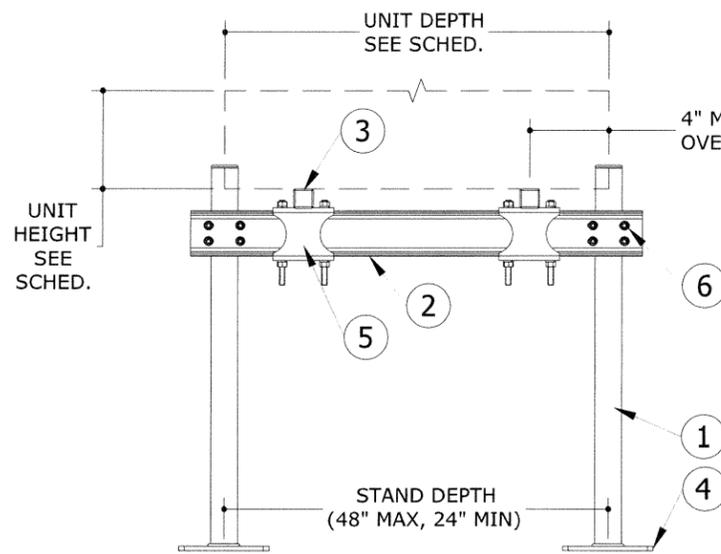
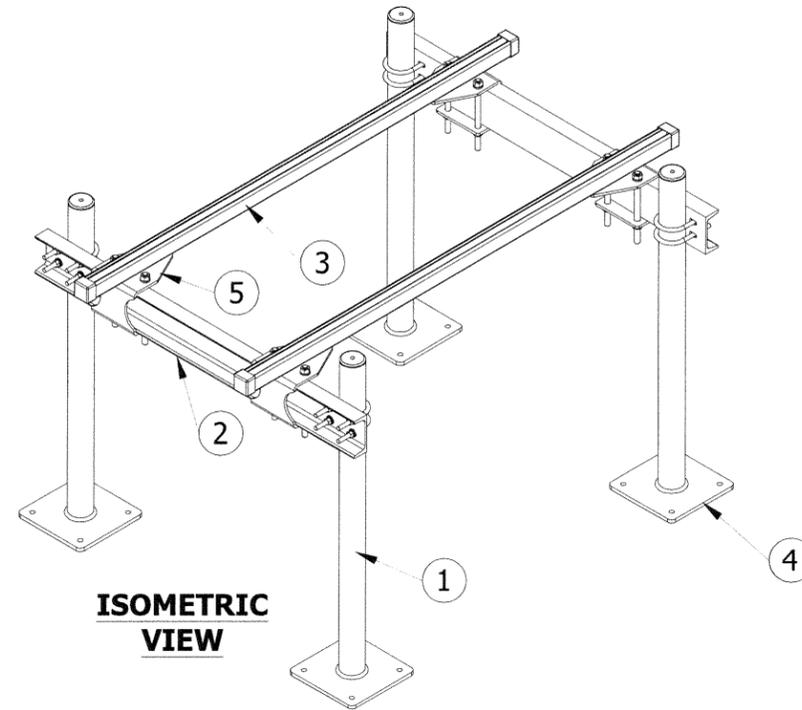
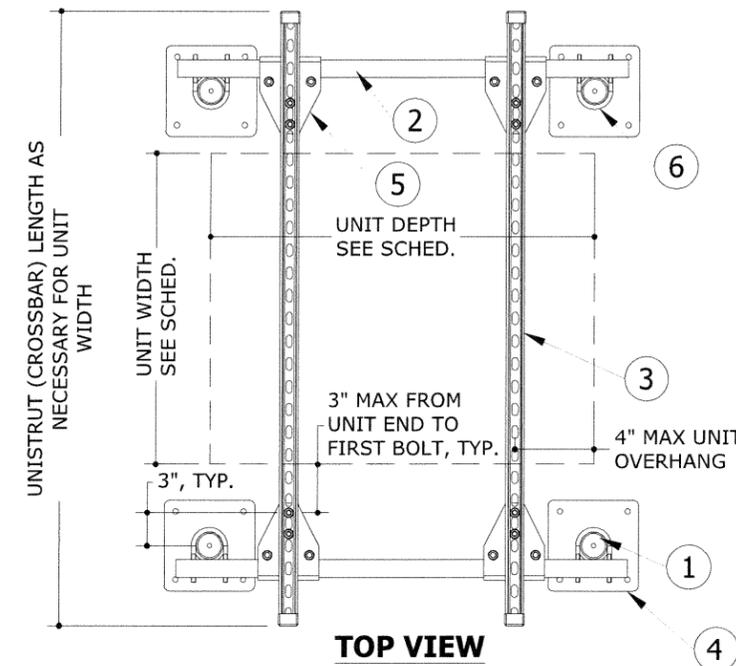
AS NOTED IN
DESIGN SCHEDULES

DESIGN NOTES:

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. SITE-SPECIFIC PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-16 AND CHAPTER 16 OF THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) SHALL BE LESS THAN OR EQUAL TO THE LATERAL AND UPLIFT DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.

GENERAL NOTES

1. THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE SEVENTH EDITION (2020).
2. MAXIMUM AND/OR MINIMUM DIMENSIONS SHALL CONFORM TO SPECIFICATIONS STATED HEREIN, MINIMUM/MAXIMUM UNIT WEIGHTS SHALL BE AS LISTED HEREIN.
3. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.
4. REACTION FORCES LISTED FOR USE WITH HOST STRUCTURE VERIFICATION ARE CALCULATED USING ASD METHODOLOGY. DESIGN PROFESSIONAL OF RECORD TO VERIFY APPLICABILITY AND/OR ADDITIONAL FACTORS FOR USE WITH HOST STRUCTURE VERIFICATION.
5. ALL FASTENERS TO BE 3/8"Ø OR GREATER SAE GRADE 2, UNLESS NOTED OTHERWISE, CADMIUM PLATED OR OTHERWISE CORROSION RESISTANT MATERIAL AND SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES. PROVIDE (5) PITCHES MIN PAST THREAD PLANE. MINIMUM FASTENER ON-CENTER SPACING = 3X ANCHOR DIAMETER. MINIMUM STEEL EDGE DISTANCE - 2X ANCHOR DIAMETER, U.N.O.
6. ALL STEEL MEMBERS/COMPONENTS SHALL BE PER THE PARTS LIST HEREIN. IF PART NOT LIST, COMPONENT SHALL BE MINIMUM Fy=30KSI.
7. ALL 22GA DEFORMED STEEL STRAPS USED FOR UNIT TIE-DOWNS SHALL BE ASTM A36 MIN. STEEL. FABRICATION OF STEEL STRAPS SHALL BE BY STRAP MANUFACTURER ONLY.
8. ALL EXISTING CONCRETE SUBSTRATE SHALL HAVE MINIMUM f'c COMPRESSIVE STRENGTH OF 3000 PSI AS VERIFIED BY OTHERS.
9. ALL WELDING MUST BE DONE BY AN AWS CERTIFIED WELDER OR SHALL CONFORM TO AISC STEEL CONSTRUCTION MANUAL 16TH ED AS INSPECTED AND VERIFIED BY OTHERS. MIN. WELD IS 3/16" FULL PERIMETER FILLET WELD (U.N.O.). WELD ELECTRODES SHALL BE E70XX FOR CARBON STEEL. FOR STAINLESS STEEL, WELD ELECTRODES SHALL FOLLOW AMERICAN WELDING SOCIETY SPECIFICATION AWS A5.4. ALL WELDS NOT OTHERWISE IDENTIFIED SHALL BE CONTINUOUS.
10. THE CONTRACTOR IS RESPONSIBLE TO INSULATE MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
11. ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS. ALL MECHANICAL SPECIFICATIONS (CLEAR SPACE, TONNAGE, ETC.) SHALL BE AS PER MANUFACTURER RECOMMENDATIONS AND ARE THE EXPRESS RESPONSIBILITY OF THE CONTRACTOR.
12. ENGINEER SEAL AFFIXED HERETO VALIDATES 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.
13. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
14. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
15. AC STANDS SHALL LABELED PER MIAMI-DADE REQUIREMENTS FOR NON-MANDATORY PRODUCT APPROVALS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.
16. ALL STEEL SHALL BE G90 GALVANIZED PER ASTM A525.



SIDE VIEW

END VIEW

PARTS LIST

PART NO.	DESCRIPTION	QUANTITY	MATERIAL
1	2" SCHED 40 PIPE (2.375" O.D., 0.154" THICK)	4 PER STAND	ASTM A53 GR. A (Fy=30KSI MIN.), TYPE F OR E
2	C4 X 5.4 CHANNEL	2 PER STAND	ASTM A36
3	1-5/8" X 1-5/8" X 12 GA UNISTRUT (CROSSBAR)	2 PER STAND	ASTM A1011 GR. 33 MIN.
4	8" X 8" X 3/8" PLATE	4 PER STAND	ASTM A36
5	1/4" THICK BRACKET	4 PER STAND	ASTM A36
6	3/8" U BOLT	8 PER STAND	304 SS MIN. OR SAE GR. 2 MIN.

PRODUCT APPROVED
as complying with the Florida
Building Code

NOA-No. 21-0830.02

Approval Date 12/02/2021

By *[Signature]*
Miami-Dade Product Control

ENGINEERING EXPRESS
 POSTAL ADDRESS:
 401 WEST ATLANTIC AVE. R10 #219
 DELRAY BEACH, FL 33444
 ENGINEERINGEXPRESS.COM

MIRO Industries, Inc.
 844 S 430 W
 Heber City, UT 84032
 801-975-9993
 MECHANICAL EQUIPMENT STAND
 MIAMI-DADE NOTICE OF ACCEPTANCE
 FLORIDA BUILDING CODE

DATE	DRWN	CHKD	DATE
7/10/21	RWN	RWN	

REMARKS
INITIALS

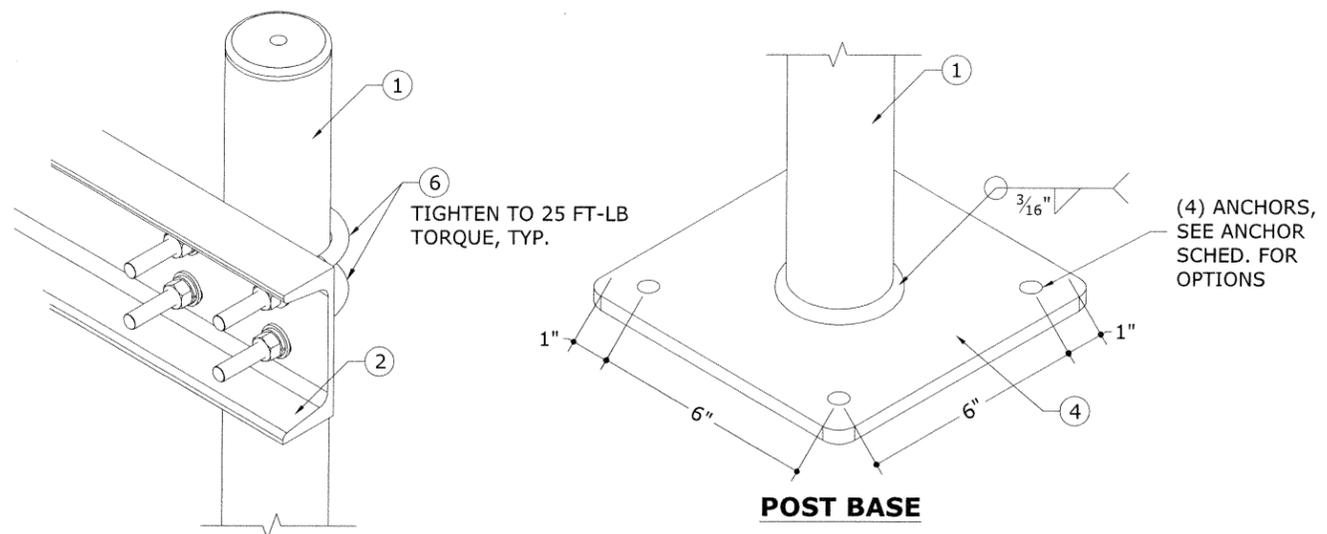
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21-42169

SCALE: NTS UNLESS NOTED

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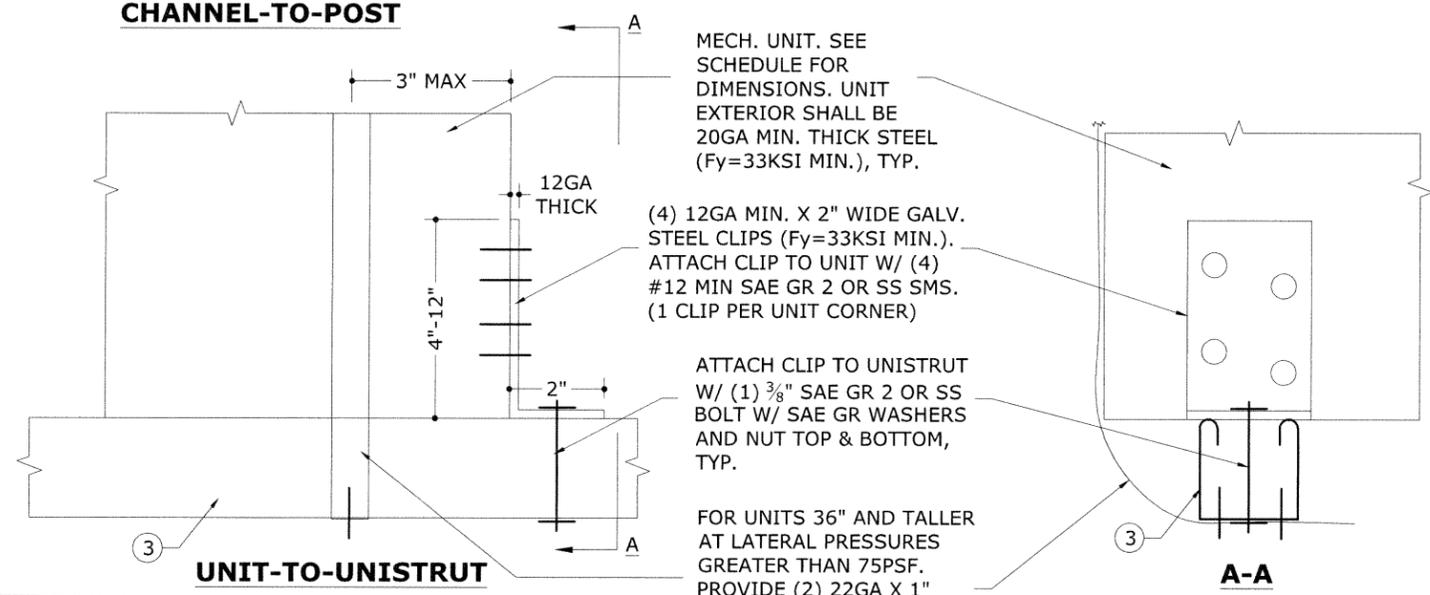


CHANNEL-TO-POST

POST BASE

(4) ANCHORS, SEE ANCHOR SCHED. FOR OPTIONS

TIGHTEN TO 25 FT-LB TORQUE, TYP.



UNIT-TO-UNISTRUT

MECH. UNIT. SEE SCHEDULE FOR DIMENSIONS. UNIT EXTERIOR SHALL BE 20GA MIN. THICK STEEL (Fy=33KSI MIN.), TYP.

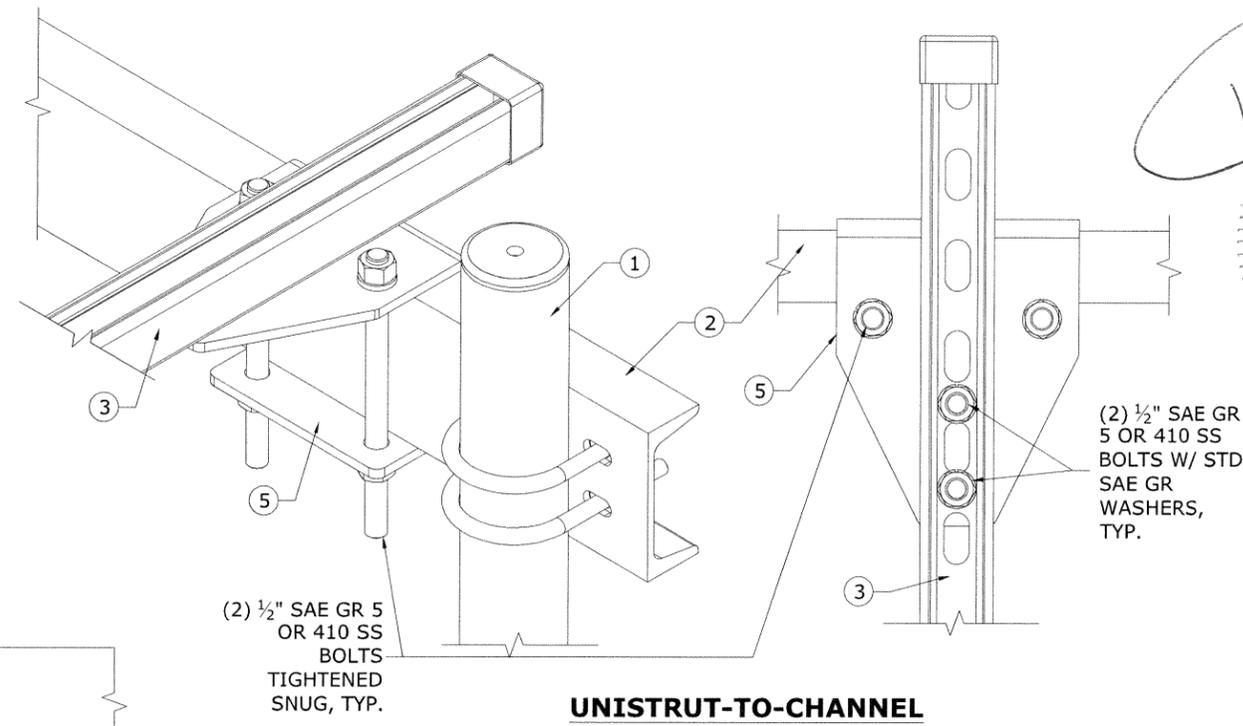
(4) 12GA MIN. X 2" WIDE GALV. STEEL CLIPS (Fy=33KSI MIN.). ATTACH CLIP TO UNIT W/ (4) #12 MIN SAE GR 2 OR SS SMS. (1 CLIP PER UNIT CORNER)

ATTACH CLIP TO UNISTRUT W/ (1) 3/8" SAE GR 2 OR SS BOLT W/ SAE GR WASHERS AND NUT TOP & BOTTOM, TYP.

FOR UNITS 36" AND TALLER AT LATERAL PRESSURES GREATER THAN 75PSF. PROVIDE (2) 22GA X 1" WIDE GALV STEEL STRAPS ALL AROUND THE UNIT(1 PER END) TIGHTEND SNUG. ATTACH TO UNISTRUT AT EACH END W/ (2) #12 SAE GR 5 OR SS SMS, TYP.

A-A

UNIT TO STAND ATTACHMENT NOTE: IF SEPARATE TIEDOWN ENGINEERING EXISTS FOR THE SPECIFIC UNIT MODEL BEING INSTALLED, IT MAY BE USED IN LIEU OF THIS DIRECTIVE. IF THIS TIEDOWN DIRECTIVE CANNOT BE ACHIEVED, SITE SPECIFIC TIEDOWN ENGINEERING IS REQUIRED



UNISTRUT-TO-CHANNEL

(2) 1/2" SAE GR 5 OR 410 SS BOLTS W/ STD SAE GR WASHERS, TYP.

(2) 1/2" SAE GR 5 OR 410 SS BOLTS TIGHTENED SNUG, TYP.

ANCHOR SCHEDULE

ANCHOR TYPE	SUBSTRATE	DESCRIPTION
A	3.0 KSI CONCRETE	3/8" DEWALT SCREW BOLT W/ 2.5" EMBEDMENT, 4" MIN. EDGE DIST.
B	3.0 KSI CONCRETE	3/8" HILTI KWIK BOLT 3 W/ 2.5" EMBEDMENT, 4" MIN. EDGE DIST.
C	MIN. 3/16" THICK STEEL (A36 MIN.)	1/2" SAE GR 5 OR 410 SS UNC SCREW, 1.25" MIN. EDGE DIST.
D	MIN. 3/16" THICK STEEL (A36 MIN.)	1/2" SAE GR 5 OR 410 SS BOLT W/ STD SAE WASHERS, 1.25" MIN. EDGE DIST.

- ANCHOR SCHEDULE NOTES:**
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
 - ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE FOR EACH ANCHOR.
 - ATTACHMENT TO WOOD HOST ROOF MEMBERS SHALL BE CERTIFIED ON A SITE SPECIFIC BASIS.
 - MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES ROOFING FINISHES.

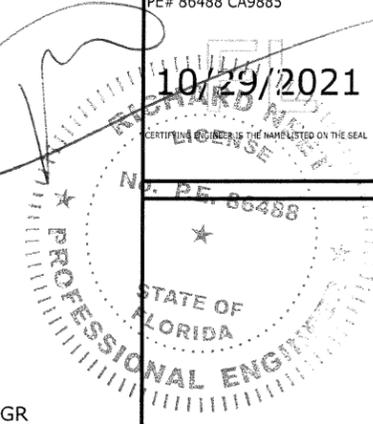
DESIGN SCHEDULE (ALLOWABLE PRESSURES)

MAX UNIT HEIGHT (in)	UNIT WIDTH (in)	UNIT DEPTH (in)	MAX LATERAL PRESSURE (psf)	MAX UPLIFT PRESSURE (psf)	BASE MOMENT (PER POST) (lb-in)	BASE SHEAR (PER POST) (lb)	BASE GRAVITY (PER POST) (lb)	ALLOWABLE UNIT WEIGHT RANGE (lb)
24	24	24	150	118	5400	150	693	75 - 150
	30	30	150	118	6750	188	760	100 - 175
	36	36	150	118	8100	225	841	150 - 250
30	24	24	150	118	6750	188	890	100 - 200
	30	30	150	118	8437.5	234	957	125 - 225
	36	36	150	118	10125	281	1038	150 - 250
36	24	24	150	118	8100	225	1106	125 - 225
	30	30	140	111	9450	263	1093	150 - 250
	36	36	130	103	10530	293	1083	200 - 300
	48	48	100	79	10800	300	966	200 - 350
48	24	24	150	118	10800	300	1593	150 - 250
	30	30	110	87	9900	275	1211	175 - 275
	36	36	100	79	10800	300	1153	175 - 300
	48	48	75	59	10800	300	962	200 - 400

- DESIGN SCHEDULE NOTES:**
- CHOOSE UNIT SIZE TIER BASED ON ACTUAL UNIT SIZE. IF UNIT WIDTH, DEPTH OR HEIGHT IS IN BETWEEN SIZE TIERS, USE HIGHER TIER. INTERPOLATION NOT PERMITTED. IF ANY UNIT DIMENSION IS BEYOND LISTED VALUE(S), SITE SPECIFIC CERTIFICATION IS REQUIRED.
 - ENGINEER OF RECORD OF HOST STRUCTURE SHALL UTILIZE THE SERVICE LOADS LISTED ABOVE (IF REQUIRED). "GRAVITY" LOAD SHALL BE CONSIDERED IN BOTH POSITIVE (+) AND NEGATIVE (-) DIRECTION (WHICHEVER PRODUCES WORST CASE HOST REACTION).

PRODUCT APPROVED
as complying with the Florida Building Code
NOA-No. 21-0830.02
Approval Date 12/02/2021
By *RFT*
Miami-Dade Product Control

RICHARD NEET, P.E.
PE# 86488 CA9885
10/29/2021



ENGINEERING EXPRESS
POSTAL ADDRESS:
401 WEST ATLANTIC AVE. R10 #219
DELRAY BEACH, FL 33444
ENGINEERINGEXPRESS.COM

MIRO Industries, Inc.
844 S 430 W
Heber City, UT 84032
801-975-9993
MECHANICAL EQUIPMENT STAND
MIAMI-DADE NOTICE OF ACCEPTANCE
FLORIDA BUILDING CODE

REMARKS	DATE
INIT ISSUE	7/10/21
DRWN	
CHKD	
RWN	
RWN	

21-42169
SCALE: NTS UNLESS NOTED