Aluminum Wall Braces

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NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE 5th EDITION, BUILDING VOLUME AND ASCE 7 2010 MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES.
- 2. ANY CHANGE FROM THE DRAWINGS AND / OR FIELD CHANGE CONDITIONS, MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER SO THAT NECESSARY CHANGES CAN BE MADE AND INTENT OF THE DESIGN IS CARRIED OUT TO ITS FULLEST EXTENT.
- 3. IT IS THE RESPONSIBILITY OF INSTALLING CONTRACTOR TO PROVIDE ADEQUATE ANCHORAGE AND CORROSION RESISTANT ISOLATION PADS AT THE BOTTOM OF ALL BASE PLATES WHEN BEARING ON CONCRETE AND STEEL STRUCTURES.
- 4. MINIMUM DESIGN LOADS : DEAD LOADS AND LIVE LOADS IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODES, CHAPTER 16. A/C UNIT & FRAME WITHSTANDS WIND SPEEDS UP TO 186 MPH PER 2014 FBC AND ASCE 7-10.
- CALCULATIONS ARE BASED ON A/C UNIT WEIGHT AND WIND PRESSURES BASED ON A/C UNIT SURFACE AREA.

- 6. DESIGN AND ENGINEERING IS FOR THE METAL SHOP WALL BRACE ONLY. SEE MANUFACTURE INSTRUCTIONS AND CERTIFICATIONS FOR PROPER INSTALLATION OF AC UNIT.
- 7. SEE MANUFACTURE INSTALLATION FOR AC CONDENSER UNIT.
- 8. 6063-T5/6061-T6 ALUMINUM ALLOY CONSTRUCTION FOR EXTERIOR EXPOSURE APPLICATIONS.
- 9. WALL BRACES SHALL HAVE ALL WELDED JOINTS AND SEAMS UNLESS OTHERWISE STATED.
- 10. WELD FILLER SHALL BE ALUMINUM ALLOY 4043 WITH TENSILE STRENGTH OF 40 KSI.
- 11. ALL ANCHOR/CONNECTION BOLTS SHALL BE IN ACCORDANCE WITH ASTM A-307 OR A-325 F.
- 12. EXPANSION BOLTS AND LAG SCREWS SHALL HAVE A
 A MINIMUM EDGE DISTANCE OF 1° FOR LAGS AND 3° FOR EXPANSION
 BOLTS. PRE-DRILL HOLES IN LAG SCREWS.
- 13. VIBRATION ISOLATOR PADS SHALL BE PROVIDED BY THE A/C CONTRACTOR SO AS NOT TO CAUSE VIBRATION TO EXISTING SUB-STRUCTURE

REVISIONS

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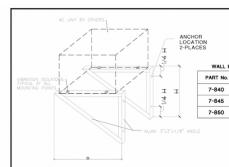




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PH D HI



WALL BRACE REACTIONS TABLE

IND PR SSURE

425 LBS 465*

350 LBS 485•

350 LBS 485* 903•

DESIGN WIND PRESSURE CALCULATED PER CHAPTER 29 OF ASCE 7-2010 FOR 356 MPH, CATEGORY B, EXPOSURE C & D CONTACT THE METAL SHOP FOR SITE SPECIFIC ENGINEERING FOR MOUNTING ABOVE 30.

use Min. (2) 5/16"x 1 1/4" TEC Screw

MAXIMUM DESIGN V

Aluminum Wall Braces THE WETAL S. 2541 W. Dunnellon Road 3,10,5 Dunnellon, FL 34433

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NOTES:

- 1. ALL WALL BRACES SHALL BE FROM 6063-T5 ALUMINUM-0.125*x3*x3* angle. MIG WELD ALL JOINTS AND SEAMS.
- 2. YIELD STRENGTH OF STANDS SHALL BE 21 KSI AND CONFORM TO ASME AND ADM STANDARDS.
- 3. WALL BRACES SHALL BE ANCHORED TO WALL TO RESIST WIND LOADS OF 186 MPH AS PER ASCE 7-2010.
- 4. ALL BOLTS SHALL BE STAINLESS STEEL A-304 OR EQUIVALENT, UNLESS OTHERWISE SPECIFIED.
- 5. HURRICANE STRAPS SHALL BE 16 GA. G-90 HOT DIPPED GALVANIZED. METAL SHOP p/n 770 OR 771 RECOMMENDED. ANCHOR STRAP FOR A/C UNIT NOT INCLUDED.
- 6. BOLTS SHALL HAVE A MINIMUM EDGE DISTANCE OF 1° IN ALUMINUM ANGLE BRACKET.
- 7. WIND LOAD CALCULATIONS BASED ON THE TYPICAL SURFACE AREA OF A/C CONDENSOR OR HEAT PUMP
- 8. WELL FILLER SHALL MEET AWS STANDARDS FOR ALUMINUM AND SHALL HAVE A TENSILE STRENGTH OF 40
- 9. ALL GALVANIZED OR PLAIN STEEL IN CONTACT WITH ALUMINUM SHALL HAVE PLASTIC OR RUBBER WASHERS, SPACES, OR BUSHINGS TO PREVENT GALVANIC CORROSION OF DISSIMILAR METALS.
- 10. THE DESIGN OF THE WALL BRACES AS INDICATED, ANY DEVIATION INVALIDATES DESIGN AND ENGINEERING.



INSTALLATION INSTRUCTIONS:

- 1. Layout all parts as shown prior to assembly.
- Make sure at least 1 1/2" of condenser housing is resting on each wall stand.
- 3. Mount equipment wall stands to host structure per anchor schedule. (Anchor hardware is not supplied with wall braces)
- 4. Add vibration pads at condenser mounting points as specified by condenser manufacturer.
- 5. Attach side of condensing unit to 1" wide G-90 Hot dipped galvanized 16 Gauge metal hurricane strap with (2) =14x3/4" SS TEK screws. Attach opposite end of anchor strap to to wall braces with minimum 1=14x3/4" SS bolt. Hurricane anchors shall be installed taught, with no slack. Maximum spacing between TEK screws is 12". screws is 12"

WALL BRACE SIZE SHART

18* 24"

30* 36*

36*

H DIM D DIM

CONCRETE Min. (2) 1/2" dia x 3 3/4" SS Hilti Kwik Bolt or Equivalent with 2 3/4" minimum embedment into 2500 psi concrete.

MASONRY

Min. (2) 1/2" dia x 3 3/4" SS Hilti Kwik Bolt or Equivalent with 2 3/4" minimum embedment into solid filled cells

use 5/8"x10" Galv. or SS hex bolt where thru CMW where no filled cells.

MARRIE G NOT VILLE G GOMES, GEALES AND ET A RESISTERES

ph D. Hiller P.E. a P.E. License # 74583 O. Box 200855 Art Change, Ft. 33129 Art Change Ft. 336248-1700 Art Change Ft. 336 Joseph Florida P.E. Port Ora Phone: 3 Email: hillereny

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WB-2

use Mill. (27.5) A T IT/4 T LEC Screw with self locking washer. Install additional blocking and/or studs as required to support wall brace. Achitect/Engineer of Record required for design of metal stud wall framing to support equipment loads from wall brace.

702 FT-LB

498• 853 FT-LB

498 653 FT-LB

MAX WIND PRESSURE 90 PSF

MAX WIND PRESSURE 79.0 PSF

WALL MATERIAL

BLK CONCRETE 2000 psi MIN.

STEEL STUD

WOOD STUD

30,

30'

30'

WALL BRACE ATTACHED TO -MASONRY, CONCRETE STRUCTURE

STEEL STUD OR WOOD HOST STRUCTURE

WALL BRACE FASTENERS:

WOOD STUD
Use Min. (2) 1/2*x 3 3/4* Hex Head Lag
screw W/ SS washer. 2 3/4* min. embed
into stud. Install additional blocking and
additional studs as required to support wall
brace. Achitect/Engineer of Record required
for design of wood frame structure to support
equipment loads from wall brace.