

Overview:

The CUTD-4 Condensing Unit Tie Downs are used to anchor a condensing unit to the condenser pad. Made from Cold Rolled 1008/1010 Steel, our tie downs are rated at a tensile strength of 482 lbs (LRFD) and a shear strength of 386 lbs (LRFD). This nominal strength can be used in conjunction with other engineering documents to verify the conformance of an equipment installation to the resistance of wind force requirements on the building code. For example, a popular 2-ton condenser was shown to be suitable for installation in the Risk Category 2 zone of Miami-Dade with windspeeds up to 175mph when tied down with CUTD-4 L-brackets.

Product Specifications:

- Secures AC Condensers firmly to the pad.
- Designed to fit between most condenser's louvers, specifically on Rheem and Rhuud units.
- Perfect for high wind / hurricane zones.
- Each kit contains four L-Brackets.
- Engineering located on reverse can be used to calculate Wind Load.
- Use in conjunction with standard or lightweight concrete condenser pads to meet local codes.
- Saves time and labor.
- Made in U.S.A.



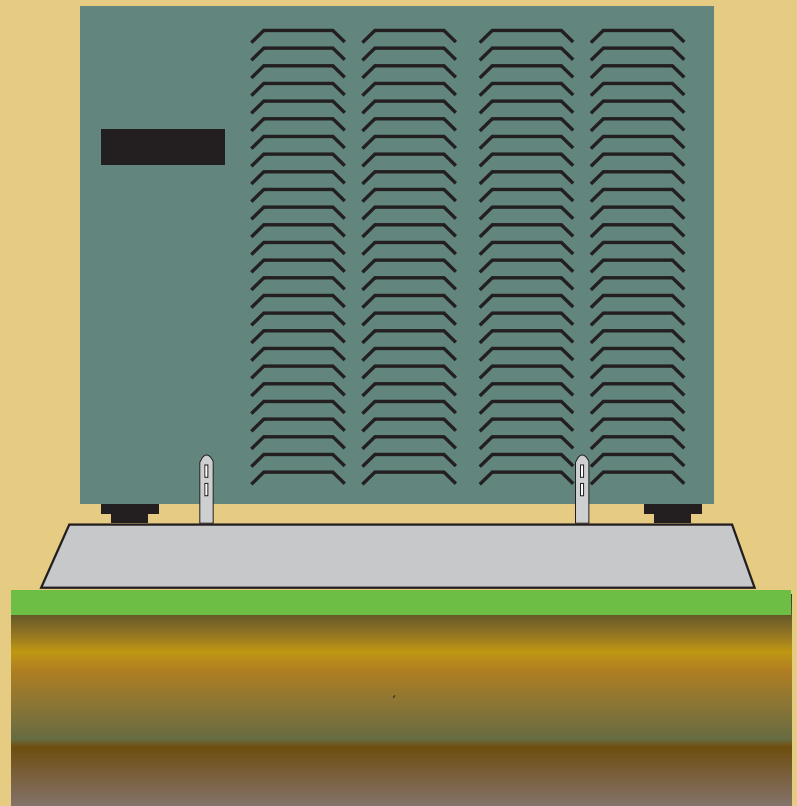
Quantity: 4

CUTD-4

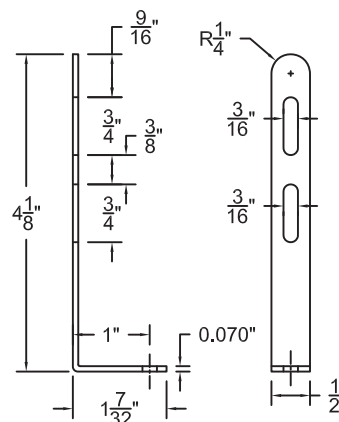
Engineering Available:
407-788-7885

Condensing Unit Tie Down

L-Bracket Anchors



L-CLIP DIMENSIONS



CUTD-4

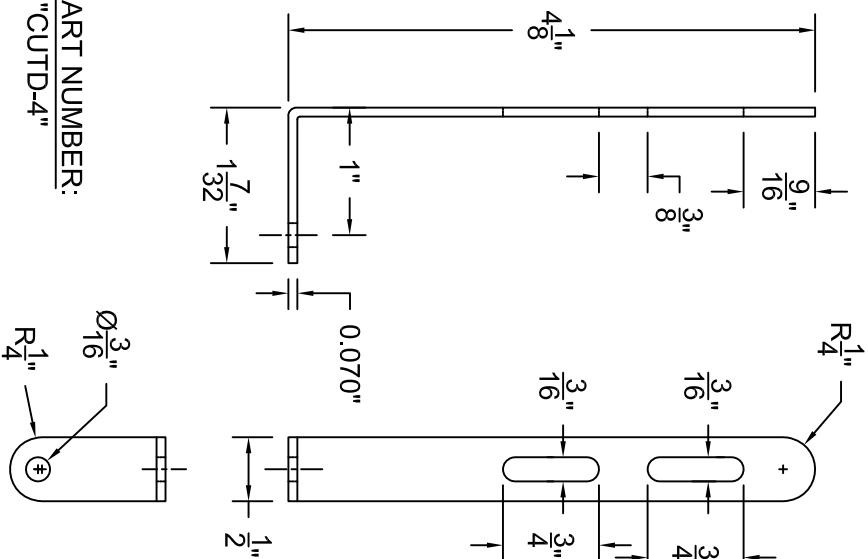
Min Order Qty = 50 pc



TEL: 800-852-3325 • FAX: 800-782-7184

FAX ORDERS TO: 800-782-7184

L-CLIP DIMENSIONS



PART NUMBER:
- "CUTD-4"

SCALE: 0.667 : 1

MATERIALS AND SPECIFICATIONS:

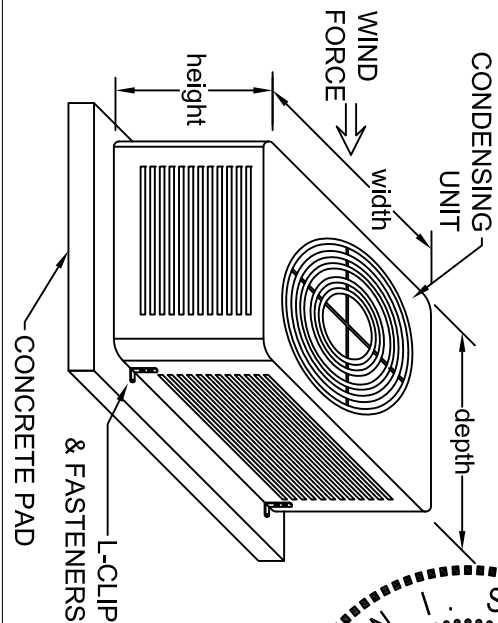
Material: Cold Rolled 1008/1010 Steel per ASTM A109
Strength: min $F_y = 41.5$ ksi, min $F_{ult} = 49.0$ ksi

TIEDOWN NOMINAL STRENGTH:

Tensile: 482 lbs (LRFD), 321 lbs (ASD)
Shear: 386 lbs (LRFD), 257 lbs (ASD)

Note: Strength calculations are based on the Steel Manual 13th Edition Part 16 Specifications, Sections D2 - Tensile Strength, and Section J4.3 - Block Shear Strength

L-CLIP TYPICAL INSTALL



GENERAL NOTES:

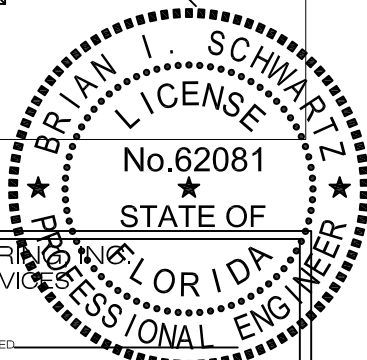
1. This document describes the dimensions, material type, and nominal strength of a AC Condensing Unit Tie Down otherwise known as an "L-Clip".
2. The Nominal strength can be used in conjunction with other engineering documents to verify the conformance of an equipment installation to the resistance to wind force requirements of the building code.
3. Fasteners to the condensing unit and to the support structure such as a concrete pad are not included in this document.

EXAMPLE USE OF THIS DOCUMENT:

1. Determine Wind Design Conditions, Wind Speed, Height, Exposure, Risk Category.
2. Calculate Wind Pressures on largest side and top of equipment.
3. Calculate Forces on equipment from these pressures and gravity.
4. Calculate the uplift and lateral force required.
5. Determine the number of clips necessary to equal or exceed the required forces given the nominal strengths of the clips and the code mandated safety factors.

For example, Verify that the L-Clips will hold down a RHEEM condensing unit described below in 175 mph winds under the conditions below:

1. A RHEEM, Model # UAPC-024 with (ht, width, depth, wt) = 23", 44", 28", 190 lbs) in Miami-Dade wind speed of 175 mph, Risk Cat II, Exposure C up to 15' above ground.
2. Wind Pressure is 66.5 psf.
3. Lateral Force is 368 lbs, factored weight = 127 lbs
4. Overturn Moment = 4067 lb-in, Uplift at one side of equipment = 4067 lbs-in / 30" = 136 lbs.
5. Use one clip at each corner. Since the pullup strength for the clip is 321 lbs (ASD), Total nominal uplift strength = $2 \times 321 = 642$ lbs > 136 lbs. Total Shear strength of 4 clips = 257 lbs (ASD) $\times 4 = 1,028$ lbs > 368. Therefore L-Clips are suitable for the installation.



BRI-KO ENGINEERING, INC.
ENGINEERING SERVICES
14940 SW 21st ST.
DAVIE, FL 33326
TEL: 954-648-6218
SIGNED: _____
DATE: Jul 12, 2012
BRIAN I SCHWARTZ, PE
FLORIDA LIC No. 62081

PROJECT

CONDENSING UNIT TIE DOWN
"L-CLIPS"
NOMINAL STRENGTH

ISSUE DATE: Jul 12, 2012

DWN BY: B.S.

DWG SIZE: 8.5"x11"

DCC: L-clip-2

SHEET:

ENG-1

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