



Structural Engineering Certification

Original Engineering: July 25, 2017

Recertification: June 13, 2019

Light Pole Systems, Inc.
1057 E Imperial Hwy. #155
Placentia CA, 92870
(714) 786-8983 www.LightPoleSystems.com

Anchor Bolt Adapter (ABA)

Description and Application

The Anchor Bolt Adapter (typically a set of 4 pieces) corrects the anchor bolt alignment problems (ABA.75:4.4 inches max, ABA1:5 inches max). It is used when the existing anchor bolts do not line up with (match) the bolt holes in the light pole base plate. The anchor bolt adapters are threaded onto the existing anchor bolts and can adjust the bolt circle diameter. Then the pole base plate is bolted to the Anchor Bolt Adapter.

Analysis and Certification

The engineering free-body force diagram of the Anchor Bolt Adapter shows static equilibrium without rotation. The rotation force is translated to anchor bolt pull-out tension. And the tension clamping force (from the anchor bolts) of the concrete pedestal and the pole base plate prevents rotation.

Therefore: The Anchor Bolt Adapter Set (ABA) is certified by this Engineer for:
3/4" Anchor Bolt Adapter (ABA.75): 25' pole, 150 lbs. fixture weight, 100 mph, 11 EPA max using the center hole and 5 EPA max using the outside hole.
1" Anchor Bolt Adapter (ABA1): 40' pole, 550 lbs. fixture weight, 100 mph, 12 EPA max using the center hole and 5 EPA max using the outside hole.

Sincerely,

Paul W. Gregory, P.E. (C30450)
4507 Delancy Dr.
Yorba Linda, Ca. 92886



The Anchor Bolt Adapter 1" allows an increase or decrease of a bolt circle by up to 5", and movement of bolt square by 2.5". For instructions, see Installation Guide.

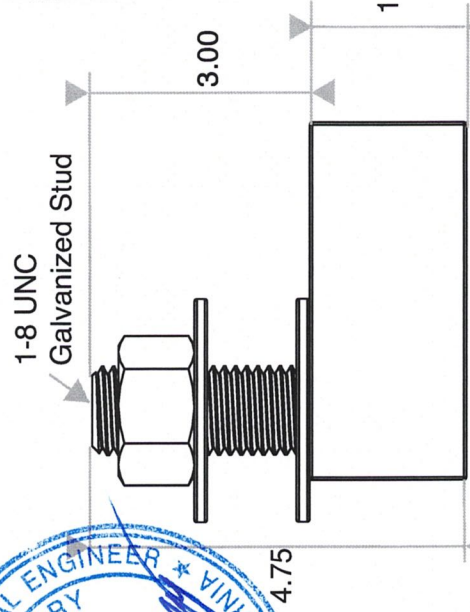
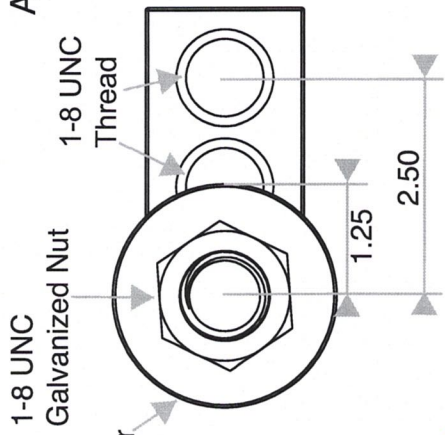
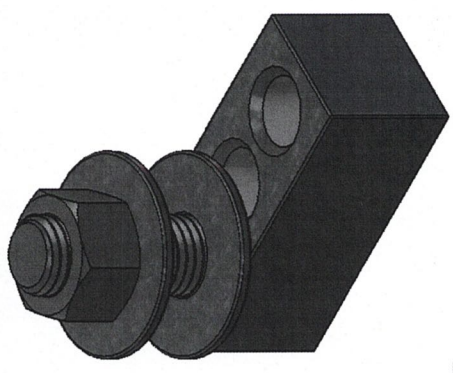
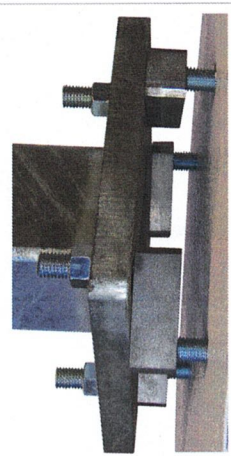
With all blocks in this configuration, the bolt circle is decreased by up to 5".

With all blocks in this configuration, the bolt circle is decreased by up to 2.5".

With all blocks in this configuration, the bolt circle is increased by up to 2.5".

With all blocks in this configuration, the bolt circle is increased by up to 5".

Pole may rotate slightly based on your exact needed adjustment and pole base plate



ABA1 is sold in sets of 4 blocks.

(2) 1-2.50 Galvanized Washer

1-8 UNC Galvanized Nut

1-8 UNC Thread



AB A1: 40' MAX POLE, 550 LBS. MAX FIXTURE WEIGHT, 100MPH MAX: EPA 12 USING CENTER HOLE. EPA 5 USING OUTSIDE HOLE.

Max EPA in 100MPH windzone

Pole Height	550lbs Fixture Weight	
	ABA1 Center Hole	ABA1 Outside Hole
15	> 20	12
20	> 20	9
25	20	7
30	15	6
35	13	5
40	12	5



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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES	DRAWN	NAME	DATE
TOLERANCES:	CHECKED	EB	08/31/17
FRACTIONAL ±	ANGULAR: MACH ± BEND ±		
TWO PLACE DECIMAL ± .005	MFG APPR.		
THREE PLACE DECIMAL ± .005	Q.A.		
INTERPRETING GEOMETRIC TOLERANCING PER:	COMMENTS:		
MATERIAL	1018 STEEL		
FINISH	HOT DIP GALVANIZED		
DO NOT SCALE DRAWING			

PART#: ABA1

TITLE:

ANCHOR BOLT ADAPTER, 1"

SIZE DWG. NO.

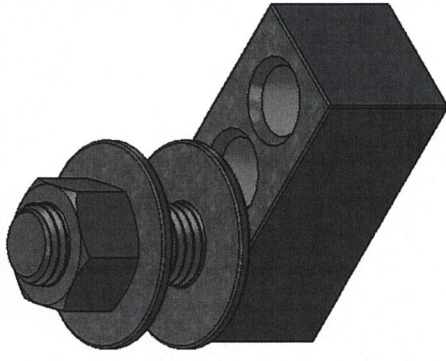
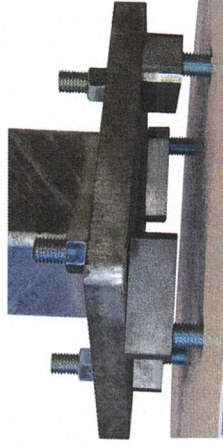
A

REV 2.2

1/5/18

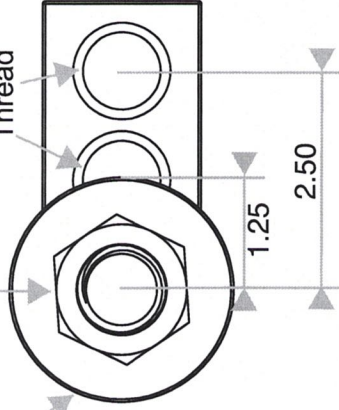
SCALE: 1:2 WEIGHT: 16lbs.

ABA1-.75 is sold in sets of 4 blocks.

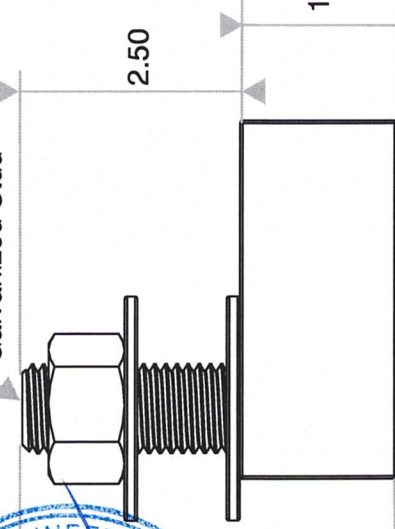


3/4-10 UNC Galvanized Nut

1-8 UNC Thread



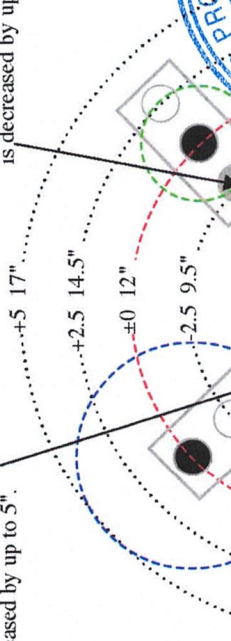
3/4-10 UNC Galvanized Stud



(2) 3/4-2.00 Hardened Washer

The Anchor Bolt Adapter 1"-.75" allows an increase or decrease of a bolt circle by up to 5", and movement of bolt square by 2.5", and allow a 3/4" base plate to bolt to 1" anchor bolts. For instructions, see Installation Guide.

With all blocks in this configuration, the bolt circle is decreased by up to 5".



With all blocks in this configuration, the bolt circle is increased by up to 5". Pole may rotate slightly based on your exact needed adjustment and pole base plate

With all blocks in this configuration, the bolt circle is increased by up to 2.5". EPA 11 USING CENTER HOLE. EPA 5 USING OUTSIDE HOLE.

Max EPA in 100MPH windzone
150lbs Fixture Weight

Pole Height	ABA.75 Center Hole	ABA.75 Outside Hole
15	17	7
20	13	5
25	11	5



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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: MACH ± BEND ±
TWO PLACE DECIMAL ± .005
THREE PLACE DECIMAL ± .005

NAME: EB
DATE: 08/31/17

PART#: ABA1-.75

TITLE:

ANCHOR BOLT ADAPTER, 1"-.75"

SIZE DWG. NO.

A

REV 2.1
1/5/18

SCALE: 1:2 WEIGHT: 16lbs.

FINISH: HOT DIP GALVANIZED
MATERIAL: 1018 STEEL
DO NOT SCALE DRAWING

The Anchor Bolt Adapter 3/4" allows an increase or decrease of a bolt circle by up to 4.4", and movement of bolt square by 2.2". For instructions, see Installation Guide.

3/4-10 UNC Galvanized Nut

(2) 3/4-2.00 Hardened Washer

3/4-10 UNC Thread

With all blocks in this configuration, the bolt circle is decreased by up to 4.4".

With all blocks in this configuration, the bolt circle is decreased by up to 2.2".

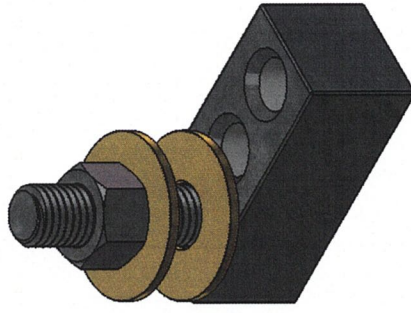
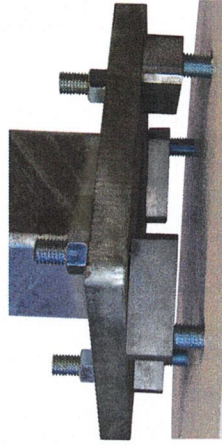
+4.4 14.4"
+2.2 12.2"
±0 10"
-2.2 7.8"
-4.4 5.6"



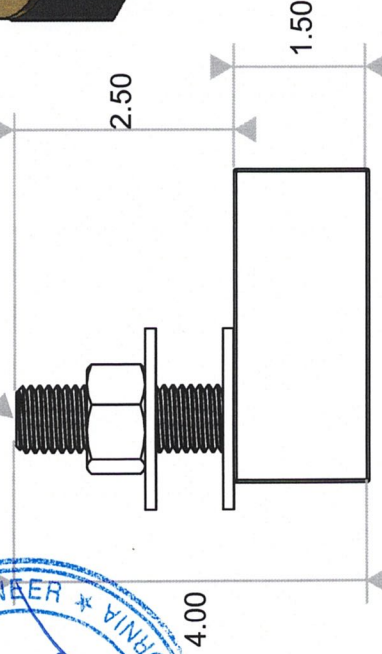
With all blocks in this configuration, the bolt circle is increased by up to 4.4". Pole may rotate slightly based on your exact needed adjustment and pole base plate

With all blocks in this configuration, the bolt circle is increased by up to 2.2".

ABA.75 is sold in sets of 4 blocks.



3/4-10 UNC Galvanized Stud



ABA.75: 25' MAX POLE, 150 LBS.MAX FIXTURE WEIGHT, 100MPH MAX: EPA 11 USING CENTER HOLE. EPA 5 USING OUTSIDE HOLE.

Max EPA in 100MPH windzone
150lbs Fixture Weight

Pole Height	ABA.75 Center Hole	ABA.75 Outside Hole
15	17	7
20	13	5
25	11	5

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: MACH ± BEND ±
ANGULAR: MACH ±
TWO PLACE DECIMAL ± .005
THREE PLACE DECIMAL ± .005
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL 1018 STEEL
FINISH HOT DIP GALVANIZED
DO NOT SCALE DRAWING

NAME EB

DATE 08/31/17

PART#: ABA.75

TITLE:

ANCHOR BOLT ADAPTER, 3/4"

SIZE DWG. NO. **A**

REV 2.1

10/31/17

SCALE: 1:2 WEIGHT: 10lbs.