

Satin Aluminum or Powder Coated Finish per Customer Specification.

C BUTT DIA.	D TOP DIA.	F BOLT CIR. DIA.	G COVER DIA.	H BOLT PROJ.	I BOLT SIZE
4	3	7	9.0625	2	.75 x 17 x 3
5	3	8	10.375	2	.75 x 17 x 3

Dimensions in Inches

Pole

The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated after base weld to produce a T6 temper.

Base Style

3-Bolt Cast Aluminum Base Flange of Alloy 356-T6 with Spun Aluminum Base Cover and Stainless Steel Hex Head Attaching Screw.



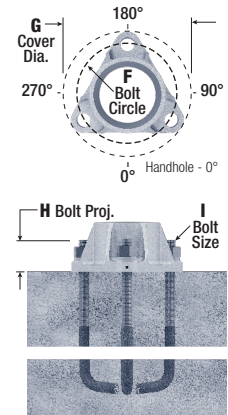
Handhole

2" x 4" Handhole with curved Lap Style Aluminum Door and two (2) Stainless Steel Self-Tapping Attaching Screws. A Grounding Provision incorporating a tapped 1/4"-20NC hole is provided opposite the Handhole.



Anchorage

Anchorage Kit will include three (3) L-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55. Ten inches (10") of Threaded End will be Galvanized per ASTM A153. Kits will contain three (3) Hex Nuts, three (3) Lock Washers, and three (3) Flat Washers (all components Galvanized Steel). A bolt circle template will be provided.



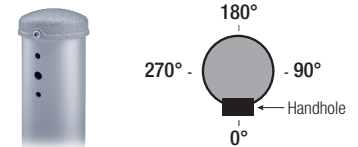
Vibration Damper

When determined necessary by Hapco, a Vibration Damper will be factory-installed inside the pole shaft. Customer specification of the damper is available.

Mounting Designation

Side Drill Mount

For Side Drill Mount applications specify luminaire type, quantity and orientation. A luminaire drilling template must be supplied at time of order.



Tenon Mount - Welded or Spun

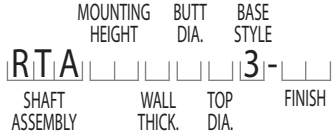
For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (3", 4", etc.). Tenon style is factory option. Welded Tenon can be specified.



A MTG. HGT.	B WALL THICKNESS	C BUTT DIA.	TOTAL LUM. WEIGHT	MAXIMUM EPA								OLD CATALOG NUMBER	CATALOG NUMBER
				120	130	140	150	160	170	180			
06	0.125	4	300	8.3	7.0	5.9	5.1	4.4	3.8	3.4	76-001	RTA06B4A3-**-	
08	0.125	4	212	5.8	4.8	4.0	3.4	2.8	2.4	2.1	76-002	RTA08B4A3-**-	
10	0.125	4	131	4.1	3.3	2.7	2.2	1.8	1.5	1.2	76-003	RTA10B4A3-**-	
10	0.125	5	234	9.4	7.8	6.6	5.6	4.8	4.1	3.6	76-017	RTA10B5A3-**-	
12	0.125	4	89	2.9	2.3	1.7	1.3	1.0	0.7	-	76-004	RTA12B4A3-**-	
12	0.125	5	156	7.3	5.9	4.9	4.1	3.4	2.9	2.5	76-009	RTA12B5A3-**-	
12	0.156	5	191	9.3	7.7	6.4	5.4	4.6	4.0	3.4	76-009W3	RTA12C5A3-**-	
12	0.188	5	225	11.4	9.4	7.9	6.7	5.8	5.0	4.3	76-009W4	RTA12D5A3-**-	
14	0.125	4	67	1.9	1.4	0.9	0.6	-	-	-	76-005	RTA14B4A3-**-	
14	0.125	5	112	5.6	4.5	3.6	2.9	2.4	2.0	1.6	76-010	RTA14B5A3-**-	
14	0.156	5	136	7.4	6.0	4.9	4.1	3.4	2.8	2.4	76-021	RTA14C5A3-**-	
14	0.188	5	161	9.1	7.5	6.2	5.2	4.4	3.7	3.2	76-022	RTA14D5A3-**-	
16	0.125	4	53	1.1	0.6	-	-	-	-	-	76-006	RTA16B4A3-**-	
16	0.125	5	88	4.2	3.2	2.5	1.9	1.5	1.2	0.9	76-011	RTA16B5A3-**-	
16	0.156	5	108	5.7	4.5	3.6	2.9	2.3	1.9	1.6	76-029	RTA16C5A3-**-	
16	0.188	5	127	7.2	5.8	4.7	3.9	3.2	2.7	2.2	76-030	RTA16D5A3-**-	
18	0.125	5	74	2.9	2.1	1.5	1.0	0.7	-	-	76-007	RTA18B5A3-**-	
18	0.156	5	91	4.2	3.2	2.5	1.9	1.4	1.1	0.8	76-031	RTA18C5A3-**-	
18	0.188	5	107	5.5	4.3	3.4	2.7	2.2	1.7	1.4	76-032	RTA18D5A3-**-	
20	0.125	5	63	1.9	1.2	0.7	-	-	-	-	76-008	RTA20B5A3-**-	
20	0.156	5	77	3.0	2.1	1.5	1.0	0.7	-	-	76-033	RTA20C5A3-**-	
20	0.188	5	91	4.1	3.1	2.3	1.7	1.3	1.0	0.7	76-034	RTA20D5A3-**-	

Catalog Number System

The catalog number for Hapco poles utilizes the following identification system.



Catalog Number Example -

RTA 20 C 5 A 3 - 01

Round Tapered Aluminum, 20' Mounting Height, .156" Wall Thickness, 5" Butt Diameter, 3" Top Diameter, 3-Bolt Base, Satin Aluminum Finish.

Wall Thickness

- B = .125"
- C = .156"
- D = .188"

Butt Diameter

- 4 = 4"
- 5 = 5"

Top Diameter

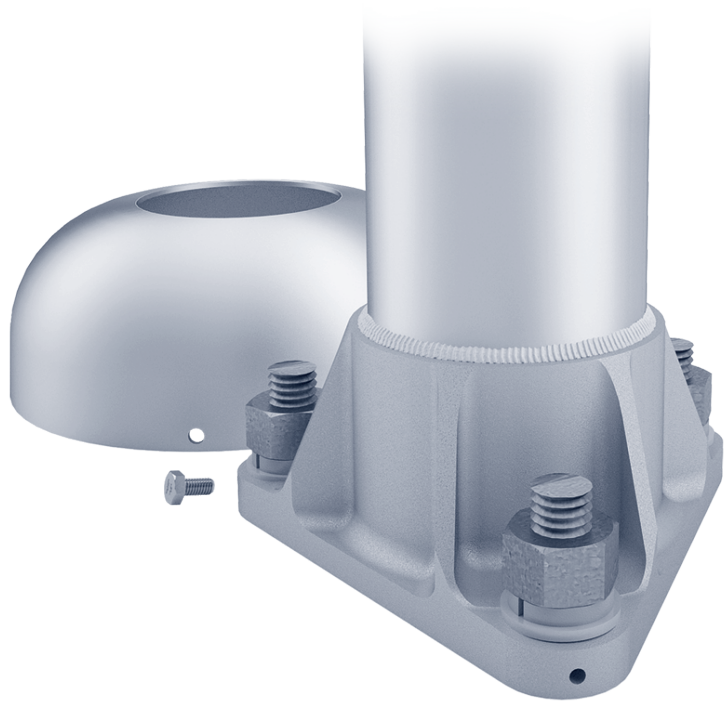
- A = 3"

Base Style

- 3 = 3-Bolt Base

Finish

- 01 = Satin Aluminum
- BA = Black Powder Coat
- BH = White Powder Coat
- BM = Dark Bronze Powder Coat
- BV = Dark Green Powder Coat
- GC = Gray Powder Coat
- ** = Specify Finish



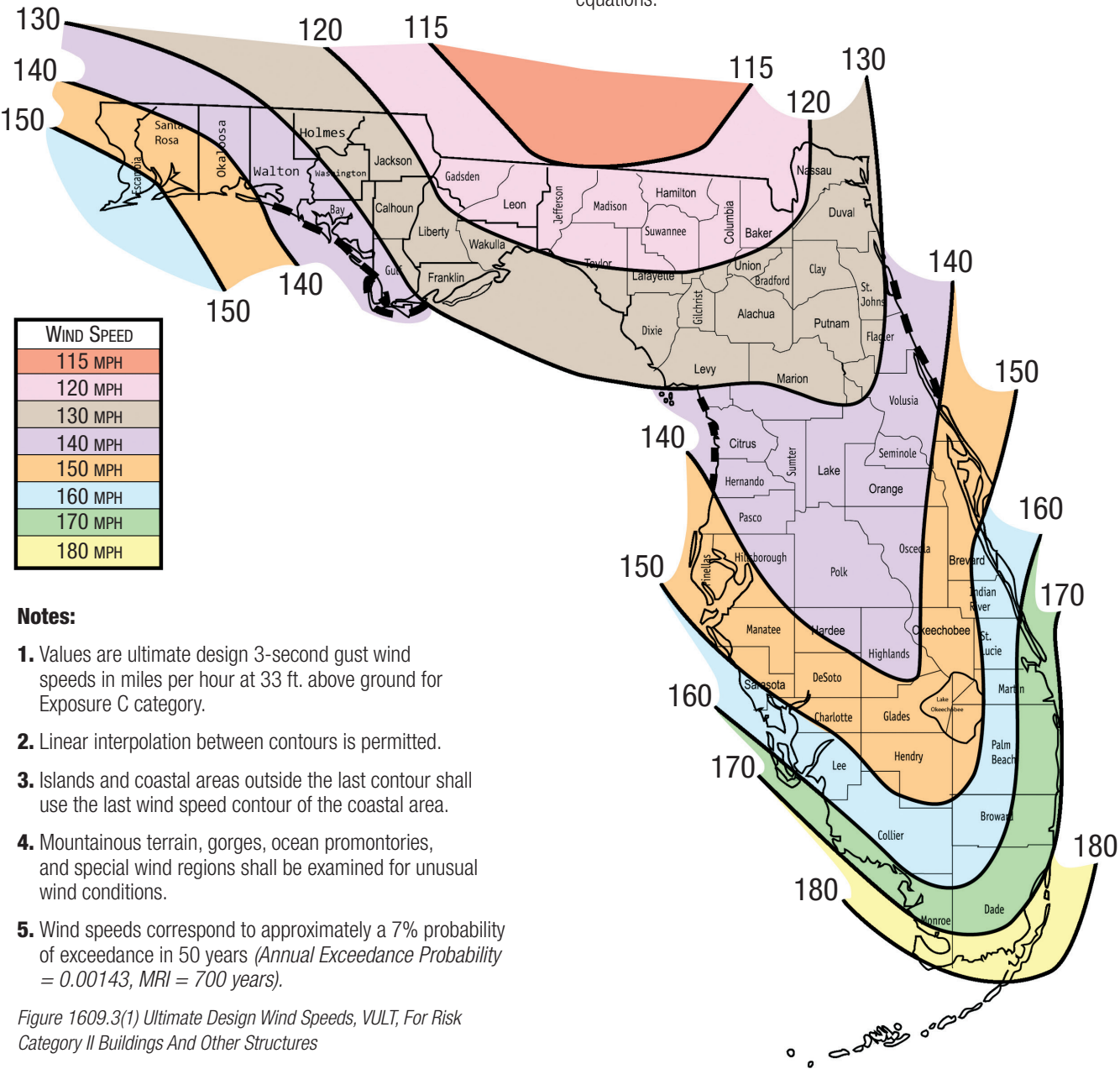
EPA Note:

EPA's based on side mounted fixture(s) not exceeding the height of the pole.

This Hapco Florida Building Code Guide has been developed to provide a quick reference for EPAs (Effective Projected Areas) meeting the 2023 FBC.

The EPAs in this publication are based on the 3-second gust wind map taken from the 2023 Florida Building Code (Figure 1609.3(1); Wind map shown below). These EPAs cannot be used with older or newer maps.

This wind map is to be used in conjunction with ASCE 7 Wind Pressure and AASHTO LTS-6 Design Equations. Wind regions from maps other than the one shown below may not represent the EPA values listed in this catalog. Please contact Hapco for more detailed information about EPA equations.



- Notes:**
1. Values are ultimate design 3-second gust wind speeds in miles per hour at 33 ft. above ground for Exposure C category.
 2. Linear interpolation between contours is permitted.
 3. Islands and coastal areas outside the last contour shall use the last wind speed contour of the coastal area.
 4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.
 5. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (Annual Exceedance Probability = 0.00143, MRI = 700 years).

Figure 1609.3(1) Ultimate Design Wind Speeds, VULT, For Risk Category II Buildings And Other Structures

Shielding Factor

The table shown at right will assist you in calculating the total EPA for many of the popular luminaire configurations. Using the shielding factor to calculate total EPA prevents an over-designed pole being used, resulting in cost savings.

LUMINAIRE CONFIGURATION	EPA	SHIELDING FACTOR	TOTAL EPA
2 @ 180°	1.5	X 2.0	= 3.0
3 @ 180°	1.5	X 3.0	= 4.5
4 @ 180°	1.5	X 4.0	= 6.0
3 @ 120°	1.5	X 2.3	= 3.45 (Shielded)
4 @ 90°	1.5	X 3.2	= 4.8 (Shielded)

Example assumes a single luminaire EPA of 1.5.

ASCE 7 Wind Load Design Assumptions:

- Risk Cat. II, MRI = 700 yrs., Exp. And Surface Roughness Cat. "C"
- $K_{zt} = 1.0, K_d = 1.0, G = 1.14, V_{ASD} = \sqrt{0.6} \cdot V_{ULT}$ (2024 FBC 1609.3.1)
- C_f = Drag Coefficients calculated per AASHTO LTS-6 (ASCE 7-16 C29.4)
- Strength Equations per AASHTO LTS-6 Allowable Stress Increase = 1.33 (ASCE 7-16 C29.4)

FLORIDA BUILDING CODE GUIDE 2023 FBC EPA's

