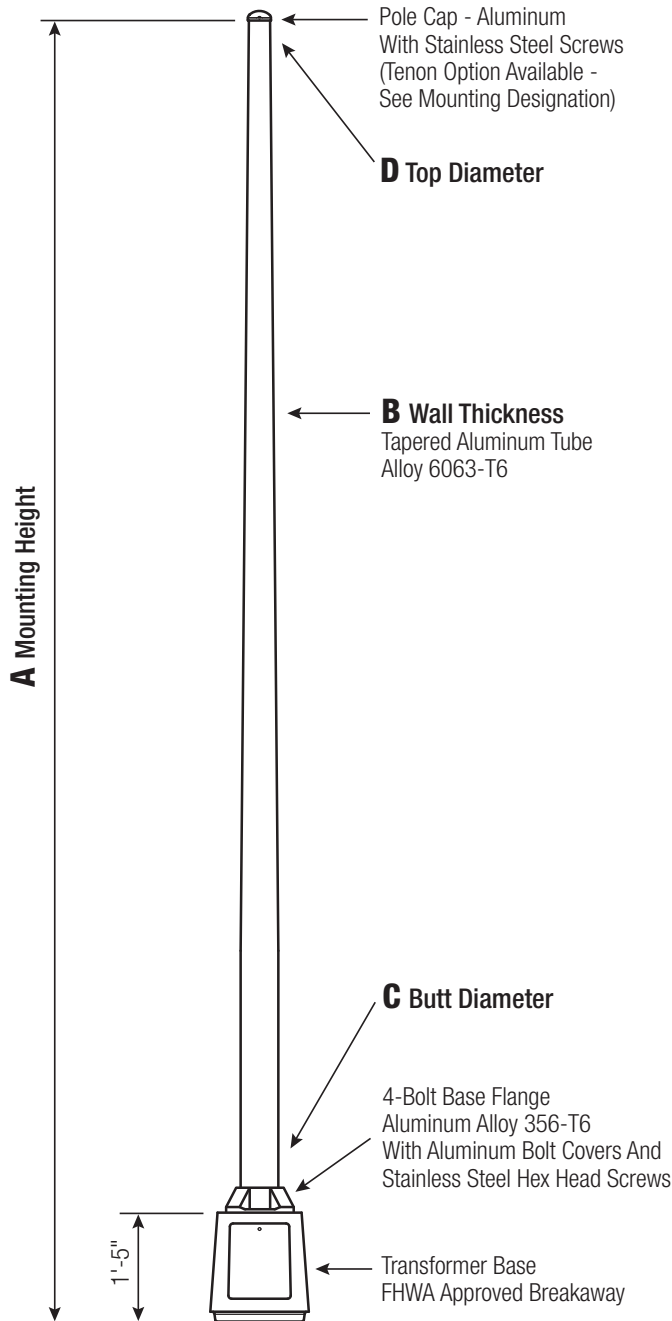


RTA

Round Tapered Aluminum Pole No Arm — Breakaway T-Base



Satin Aluminum or Powder Coated Finish per Customer Specification.

C BUTT DIA.	D TOP DIA.	F BOLT CIR. DIA.	G BASE SQ.	H BOLT PROJ.	I BOLT SIZE
6	4.5	12	13.0625	3.5	1 x 36 x 4
7	4.5	12	13.0625	3.5	1 x 36 x 4
8	4.5	15	15.375	3.5	1 x 36 x 4
9	4.5	15	15.375	3.5	1 x 36 x 4
10 Up To .250"	6	15	15.375	3.5	1 x 48 x 4
10 .312"	6	17.25	17.4375	3.5	1 x 48 x 4

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.

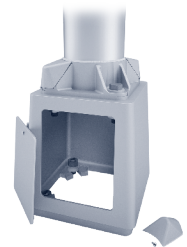
Base Style

Cast Aluminum Transformer Base (T-Base) of Alloy 356-T6 with Aluminum Door and Stainless Steel Hex Head Screw. FHWA Approved Breakaway.



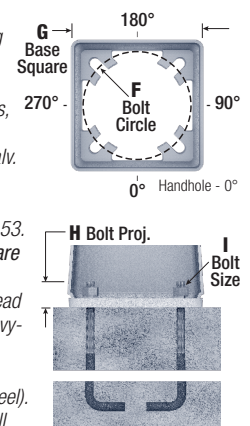
Handhole

6"-10" Butt Diameters - Tapered Door Opening (9-3/4" W Base x 9-1/4" W Top x 11-3/4" H) with Flush Mount Aluminum Cover and Stainless Steel Hex Head Screw. Grounding Provisions tapped 1/4"-20NC and 1/2"-13NC are provided.



Anchorage

Base Anchorage includes four (4) L-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55, four (4) each Heavy-Duty Flat Washers, Lock Washers, and Hex Nuts (all components Galv. Steel). Ten inches (10") of threaded end will be galvanized per ASTM A153. **Top Connecting Hardware** includes four (4) each 1"-8NC x 3-3/4" Hex Head Bolts, Flat Washers, Heavy-Duty Flat Washers, Lock Washers, and Hex Nuts (all components Galv. Steel). A bolt circle template will be provided.



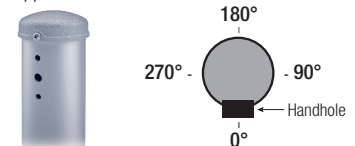
Vibration Damper

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.

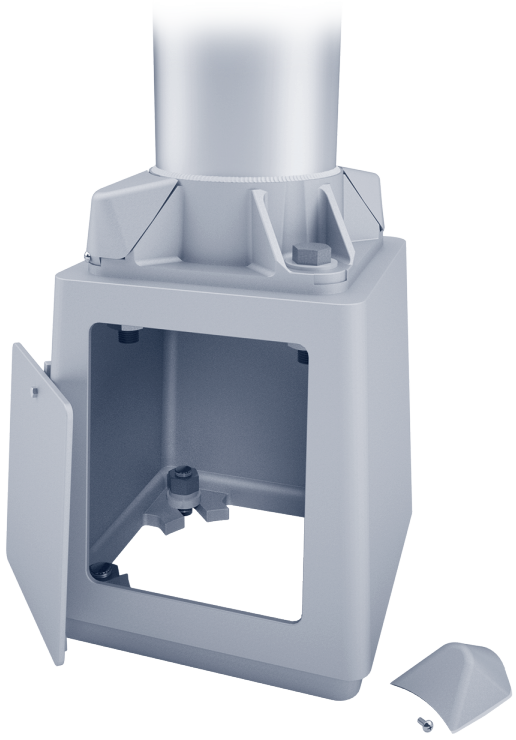


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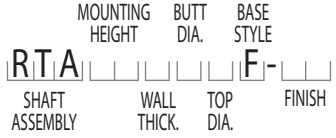
WARNING: Do not install light pole without luminaire.

A MTG. HGT.	B WALL THICKNESS	C BUTT DIA.	TOTAL LUM. WEIGHT	MAXIMUM EPA								CATALOG NUMBER
				120	130	140	150	160	170	180		
20	0.125	6	130	7.8	6.3	5.3	4.5	3.8	3.3	2.8	RTA20B6BF-**	
20	0.156	6	160	10.5	8.7	7.3	6.2	5.3	4.6	4.0	RTA20C6BF-**	
20	0.188	6	189	13.3	11.0	9.3	8.0	6.9	6.0	5.2	RTA20D6BF-**	
20	0.156	7	210	16.1	13.4	11.4	9.8	8.5	7.4	6.5	RTA20C7BF-**	
20	0.188	7	249	20.0	16.7	14.2	12.2	10.6	9.3	8.2	RTA20D7BF-**	
20	0.156	8	277	22.4	18.8	16.0	13.8	12.0	10.5	9.3	RTA20C8BF-**	
20	0.188	8	300	27.6	23.3	19.9	17.2	15.0	13.1	11.6	RTA20D8BF-**	
25	0.156	6	96	6.0	4.7	3.9	3.2	2.6	2.2	1.8	RTA25C6BF-**	
25	0.188	6	114	8.1	6.5	5.4	4.5	3.8	3.2	2.8	RTA25D6BF-**	
25	0.156	7	124	10.3	8.4	7.0	5.9	5.0	4.3	3.7	RTA25C7BF-**	
25	0.188	7	147	13.2	10.9	9.1	7.8	6.7	5.8	5.0	RTA25D7BF-**	
25	0.156	8	163	15.1	12.5	10.6	9.0	7.8	6.7	5.9	RTA25C8BF-**	
25	0.188	8	193	19.0	15.8	13.4	11.5	10.0	8.7	7.6	RTA25D8BF-**	
25	0.219	8	222	22.7	19.0	16.1	13.9	12.0	10.5	9.2	RTA25C9BF-**	
25	0.250	8	249	26.3	22.1	18.8	16.2	14.1	12.3	10.8	RTA25F8BF-**	
30	0.156	7	82	6.2	4.8	3.8	3.1	2.6	2.1	1.7	RTA30C7BF-**	
30	0.188	7	97	8.5	6.8	5.5	4.6	3.9	3.3	2.8	RTA30D7BF-**	
30	0.156	8	107	10.1	8.1	6.7	5.7	4.8	4.1	3.5	RTA30C8BF-**	
30	0.188	8	127	13.2	10.8	9.0	7.6	6.5	5.6	4.8	RTA30D8BF-**	
30	0.219	8	145	16.1	13.2	11.1	9.5	8.2	7.1	6.1	RTA30E8BF-**	
30	0.250	8	163	19.0	15.7	13.3	11.3	9.8	8.5	7.4	RTA30F8BF-**	
30	0.188	9	180	18.3	15.2	12.9	11.0	9.5	8.2	7.1	RTA30D9BF-**	
30	0.250	9	233	25.5	21.4	18.2	15.6	13.5	11.8	10.3	RTA30F9BF-**	
30	0.188	10	272	24.5	20.6	17.5	15.0	12.9	11.2	9.7	RTA30D1CF-**	
35	0.156	8	75	6.3	4.8	3.8	3.1	2.5	2.0	1.6	RTA35C8BF-**	
35	0.188	8	89	8.8	7.0	5.7	4.7	3.9	3.3	2.7	RTA35D8BF-**	
35	0.219	8	102	11.2	9.0	7.4	6.2	5.3	4.5	3.8	RTA35E8BF-**	
35	0.250	8	115	13.6	11.0	9.2	7.7	6.6	5.6	4.8	RTA35F8BF-**	
35	0.188	9	127	13.1	10.7	8.9	7.5	6.4	5.4	4.6	RTA35D9BF-**	
35	0.250	9	164	19.2	15.9	13.4	11.4	9.8	8.4	7.3	RTA35F9BF-**	
35	0.188	10	192	18.2	15.2	12.8	10.9	9.3	7.9	6.8	RTA35D1CF-**	
35	0.219	10	221	22.1	18.5	15.7	13.4	11.5	9.9	8.5	RTA35E1CF-**	
35	0.250	10	249	26.0	21.8	18.5	15.8	13.6	11.8	10.2	RTA35F1CF-**	
35	0.312	10	300	33.5	28.3	24.1	20.7	17.9	15.6	13.6	RTA35G1CF-**	
40	0.188	8	66	5.4	3.9	3.0	2.3	1.8	1.3	1.0	RTA40D8BF-**	
40	0.219	8	76	7.4	5.6	4.5	3.6	2.9	2.4	1.9	RTA40E8BF-**	
40	0.250	8	85	9.4	7.3	5.9	4.9	4.0	3.4	2.8	RTA40F8BF-**	
40	0.188	9	94	9.0	7.1	5.8	4.8	3.9	3.2	2.6	RTA40D9BF-**	
40	0.250	9	122	14.2	11.5	9.6	8.1	6.8	5.8	4.9	RTA40F9BF-**	
40	0.188	10	143	13.4	11.1	9.2	7.7	6.4	5.4	4.4	RTA40D1CF-**	
40	0.219	10	164	16.7	13.8	11.6	9.8	8.3	7.0	5.9	RTA40E1CF-**	
40	0.250	10	185	19.9	16.6	14.0	11.8	10.1	8.6	7.3	RTA40F1CF-**	
40	0.312	10	226	26.3	22.0	18.7	15.9	13.7	11.8	10.2	RTA40G1CF-**	



Catalog Number System

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



Catalog Number Example -

RTA 30 D 8 B F - 01

Round Tapered Aluminum, 30' Mounting Height, .188" Wall Thickness, 8" Butt Diameter, 4.5" Top Diameter, Breakaway T-Base, Satin Aluminum Finish.

Wall Thickness

- B = .125"
- C = .156"
- D = .188"
- E = .219"
- F = .250"
- G = .312"

Butt Diameter

- 6 = 6"
- 7 = 7"
- 8 = 8"
- 9 = 9"
- 1 = 10"

Top Diameter

- B = 4.5"
- C = 6"

Base Style

F = Breakaway T-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

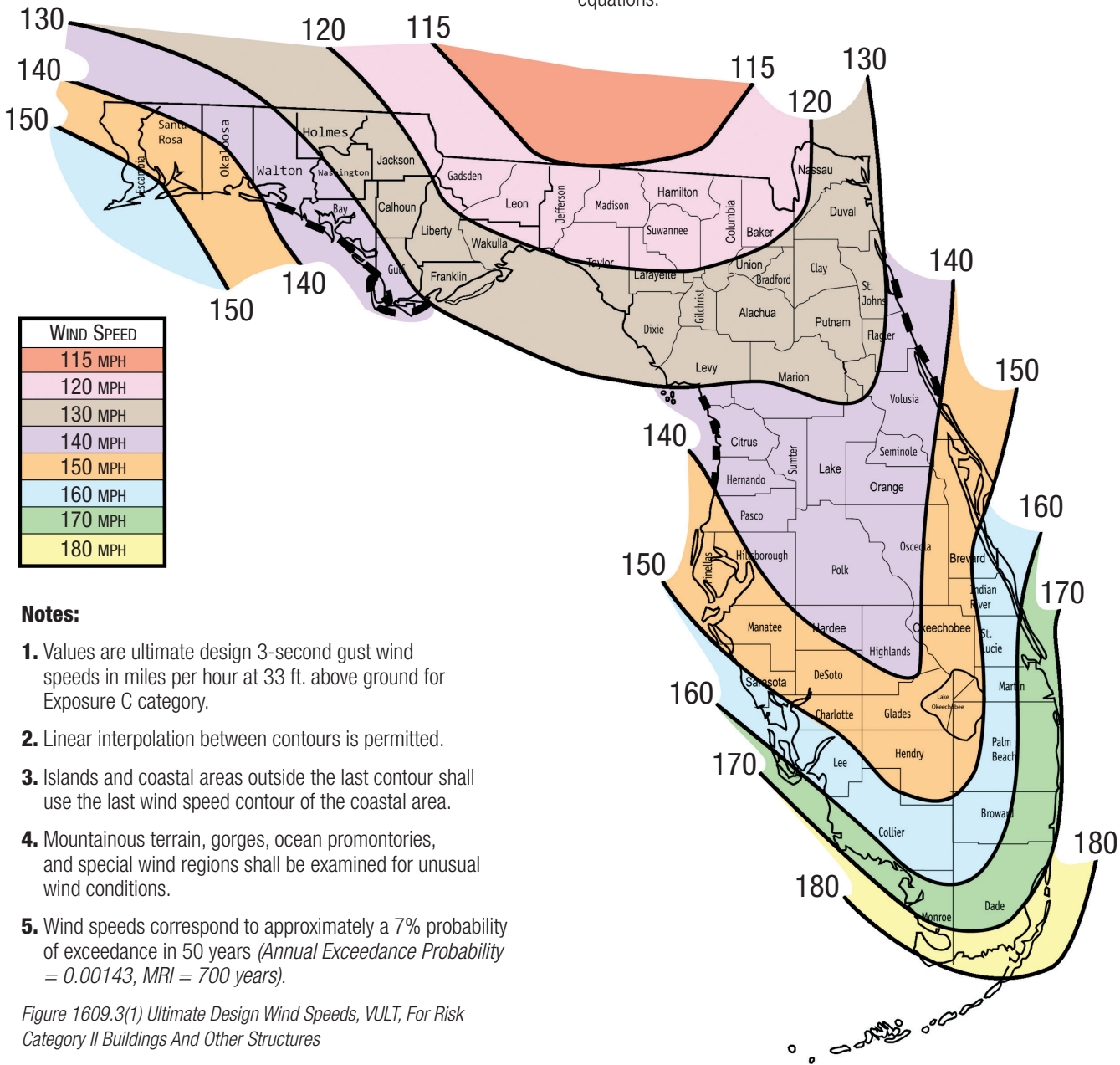
EPA Note:

EPAs 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)

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