Round Straight Aluminum Pole
No Arm — Direct Buried

Pole Cap - Aluminum
With Stainless Steel Screws
(Tenon Option Available - See Mounting Designation)

B Wall Thickness
Straight Aluminum Tube
Alloy 6063-T6

C Butt Diameter

D Top Diameter

E Embed Length

A Mounting Height

Handhole

4" Butt Diameter - 2" x 4" Handhole with curved Lap Style Aluminum Door and two (2) SS Self-Tapping Attaching Screws. A Grounding Provision is provided as part of the handhole.

5" Butt Diameter - 2-1/2" x 5" Handhole with curved Lap Style Aluminum Door and two (2) SS Self-Tapping Attaching Screws. A Grounding Provision is provided as part of the handhole.

6" Butt Diameter - Reinforced, 3" x 5" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. A Grounding Provision incorporating a 3/8" diameter hole is provided opposite the Handhole.

7"+ Butt Diameters - Reinforced, 3" x 6" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. Reinforced Frame will contain a tapped 3/8"-16NC Grounding Provision.

Embed Detail

Direct Buried Pole
bottom section on 6" butt diameter poles will be partially flattened into an anti-rotational, oval cross section. Wire access will be provided 24" below ground line. Soil conditions vary by site. Foundation requirements should be determined by a qualified Structural Engineer with knowledge of jobsite soil conditions.

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
For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (3", 4", etc.).

C and D Dimensions in Inches

<table>
<thead>
<tr>
<th>C Butt Dia.</th>
<th>D Top Dia.</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
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<tr>
<td>5</td>
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<td>9</td>
<td>9</td>
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<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Satin Aluminum or Powder Coated Finish per Customer Specification.

WARNING: Do not install light pole without luminaire.
### Catalog Number System

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

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<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>RSA</td>
<td>D</td>
<td>01</td>
<td>08</td>
<td>30</td>
<td>01</td>
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<tr>
<td>SHAFT</td>
<td>WALL</td>
<td>TOP</td>
<td>ASSEMBLY</td>
<td>BASE</td>
<td>STYLE</td>
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<tr>
<td>H</td>
<td>THICK</td>
<td>DIA</td>
<td>BASE</td>
<td>DIA</td>
<td>FINISH</td>
</tr>
<tr>
<td>120</td>
<td>130</td>
<td>140</td>
<td>150</td>
<td>160</td>
<td>180</td>
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</tbody>
</table>
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### Catalog Number Example -

**RSA 30 D 8 - 01**

Round Straight Aluminum, 30' Mounting Height, .188" Wall Thickness, 8" Butt Diameter, No Taper, FBC Direct Buried, Satin Aluminum Finish.

### Wall Thickness

- B = .125"
- C = .156"
- D = .188" (Preferred)
- E = .219" (Total Weight of Pole)
- F = .250" (Maximum Weight)
- G = .312" (Maximum Load)

### Butt Diameter

- 4" (Preferred)
- 5"
- 6"
- 7"
- 8" (Preferred)
- 9"
- 10" (Preferred)

### Top Diameter

- \(-\) = No Taper

### Base Style

- D = FBC Direct Buried

### 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

### EPA Note:

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

### Embed Note:

Embed depths shown are calculated using the weight and EPA combination corresponding to the maximum windspeed available per pole. The calculation uses the assumption of a Class 3 soil type with a 12" diameter augered hole that is to be back-filled preferably with chloride-free concrete or high density polyurethane foam. Embed depths are subject to change if the loading changes or if the wind speed changes. Please contact Hapco for help in determining an appropriate embed depth.

### Florida Building Code Guide

2017 FBC EPA's

[www.hapco.com](http://www.hapco.com)
This Hapco Florida Building Code Guide has been developed to provide a quick reference for EPAs (Effective Projected Areas) meeting the 2017 FBC.

The EPA's in this publication are based on the 3-second gust wind map taken from the 2017 Florida Building Code (Figure 1609A Wind Map shown below). These EPA's cannot be used with older or newer maps.

This Wind Map is to be used in conjunction with ASCE 7-16 Wind Pressure and 2009 AASHTO 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 nominal 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 1609A Ultimate Design Wind Speeds, \(V_{ULT}\), For Risk Category II Buildings and Other Structures.

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**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.

<table>
<thead>
<tr>
<th>Luminaire Configuration</th>
<th>EPA</th>
<th>Shielding Factor</th>
<th>Total EPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 @ 180°</td>
<td>1.5</td>
<td>X 2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>3 @ 180°</td>
<td>1.5</td>
<td>X 3.0</td>
<td>4.5</td>
</tr>
<tr>
<td>4 @ 180°</td>
<td>1.5</td>
<td>X 4.0</td>
<td>6.0</td>
</tr>
<tr>
<td>3 @ 120°</td>
<td>1.5</td>
<td>X 2.3 (Shielded)</td>
<td>3.45</td>
</tr>
<tr>
<td>4 @ 90°</td>
<td>1.5</td>
<td>X 3.2 (Shielded)</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Example assumes a single luminaire EPA of 1.5.

ASCE 7-16 Wind Load Design Assumptions:
- Risk Cat. II, MRI = 700 yrs., Exp. and Surface Roughness Cat. "C"
- \(K_w = 1.0\), \(K_d = 1.0\), \(G = 1.14\), \(V_{ASD} = \sqrt{0.6*V_{ULT}}\) (FBC 2017 1609.3.1)
- \(C_w\) and \(C_d\) coefficients calculated per AASHTO LTS-6 (ASCE 7-16 C29.4)
- Strength Equations per AASHTO LTS-6 Allowable Stress Increase = 1.33