



CPW Series Round Tapered Steel Poles

12–18 ft models

# CPW Series, Round Tapered Steel Solar Camera Poles (12–18 ft)

Round tapered steel poles for solar + camera installations in 12–18 ft mounting heights. Available in **Embedded (Direct-Burial)** and **Anchor Base** mounting styles. Select by height, butt diameter, and EPA at 100 MPH.

## Embedded (Direct-Burial) — Models 12–18 ft

EPA @ 100 MPH

### MOUNTING

Embedded (Direct-Burial)

### EMBEDDED SECTION LENGTH

5 ft below grade (typical)

### GAUGE (TYPICAL)

11 ga (0.1196")

### EPA BASIS

EPA @ 100 MPH (as listed)

New Part Number	Above Grade	Total Length	Embed Section	Butt OD	Gauge	EPA (100 MPH)	Weight Capacity	Duty Class
CPW1201148E	12'	17'	5'	4.8"	011	13	234 lbs	Standard
CPW1201165E	12'	17'	5'	6.5"	011	27	344 lbs	Medium
CPW1201170E	12'	17'	5'	7.0"	011	35	534 lbs	Heavy
CPW1501154E	15'	20'	5'	5.4"	011	13	234 lbs	Standard
CPW1501165E	15'	20'	5'	6.5"	011	27	344 lbs	Medium
CPW1501175E	15'	20'	5'	7.5"	011	35	534 lbs	Heavy
CPW1801156E	18'	23'	5'	5.6"	011	13	234 lbs	Standard
CPW1801170E	18'	23'	5'	7.0"	011	27	344 lbs	Medium
CPW1801185E	18'	23'	5'	8.5"	011	35	534 lbs	Heavy

**Embedded (Direct-Burial):** Embedded poles are installed below grade and do not use a bolt circle or anchor bolts. Confirm embed depth, soil class, and backfill requirements with the project engineer.

**Anchor Base — Models 12–18 ft**

**EPA @ 100 MPH**

**MOUNTING**  
**Anchor Base**

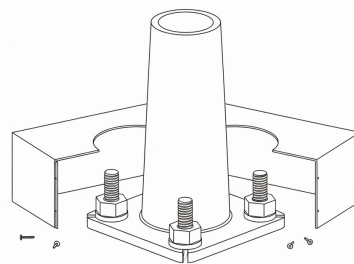
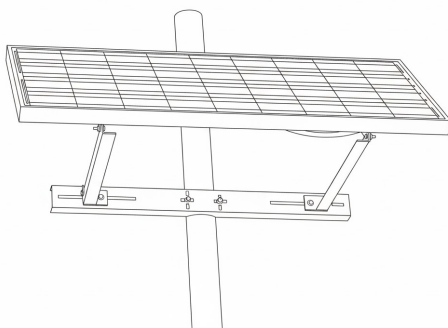
**FOUNDATION INTERFACE**  
**Concrete foundation (bolt circle)**

**GAUGE (TYPICAL)**  
**11 ga (0.1196")**

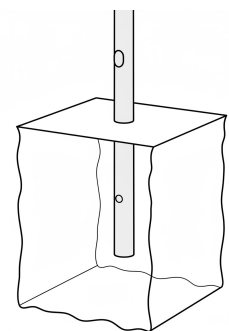
**EPA BASIS**  
**EPA @ 100 MPH (as listed)**

New Part Number	Height	Butt OD	Gauge	EPA (100 MPH)	Weight Capacity	Bolt Circle	Anchor Bolts	Duty
CPW1201148A	12'	4.8"	011	13	234 lbs	8.0"	0.75 × 17 × 3	Standard
CPW1201165A	12'	6.5"	011	27	344 lbs	9.5"	0.75 × 17 × 3	Medium
CPW1201170A	12'	7.0"	011	35	534 lbs	10.0"	1.00 × 36 × 4	Heavy
CPW1501154A	15'	5.4"	011	13	234 lbs	8.0"	0.75 × 17 × 3	Standard
CPW1501165A	15'	6.5"	011	27	344 lbs	9.5"	0.75 × 30 × 3	Medium
CPW1501175A	15'	7.5"	011	35	534 lbs	10.5"	1.00 × 36 × 4	Heavy
CPW1801156A	18'	5.6"	011	13	234 lbs	8.0"	0.75 × 17 × 3	Standard
CPW1801170A	18'	7.0"	011	27	344 lbs	10.0"	1.00 × 36 × 4	Medium
CPW1801185A	18'	8.5"	011	35	534 lbs	11.5"	1.00 × 36 × 4	Heavy

**Anchor Base:** Anchor base poles mount to a concrete foundation using anchor bolts and a bolt circle. Anchor bolt size, projection, and embed must match the project foundation design.



Anchor Base



Embedded

## Technical Notes

### Overview

### POLE (SHAFT CONSTRUCTION)

- One- or two-section shaft design (model dependent).
- Standard 11 gauge steel (0.1196").
- Weldable hot rolled commercial quality carbon steel.
- Minimum yield strength: 55,000 psi after fabrication.
- One-piece construction with full-length longitudinal weld.
- Uniform taper: approximately 0.14 inches of diameter change per foot of length.

### HANDHOLE & GROUNDING

- Oval reinforced gasketed handhole with nominal 4 in × 6.5 in inside opening.
- Typical handhole location: 1 ft 6 in above base (anchor base models).
- Optional handhole sizes may be available by request.
- Grounding provision located inside the handhole ring.

### FINISH

- Exterior surfaces are mechanically cleaned prior to coating.
- Standard finish: polyester thermosetting powder coat.
- Typical powder thickness: minimum 3 mils for color finishes.
- Galvanizing may be available upon request.

## Selection Guidance

### Engineering

### EMBEDDED SECTION (COATING & BELOW GRADE PROTECTION)

- Embedded section length: 5 ft (typical for 12–18 ft models shown).
- Below-grade portion is coated with **TARGUARD COAL TAR EPOXY**.
- High-build polyamide epoxy coal tar coating with semi-gloss finish.
- Available colors: black and red.
- Meets standards including Corps of Engineers Formula C-200a and SSPC Paint 16 (Compositional Specification).
- **Not included:** Equipment boxes, camera, and solar panel are not included with the pole package unless specified separately.

### ANCHOR BASE (FOUNDATION INTERFACE)

- Anchor base uses a steel base plate connection to a concrete foundation.
- Foundation, anchor bolt embed, and bolt circle must match the project's engineered foundation details.
- All welding and fabrication are performed per applicable welding standards (for example, AWS D1.1), per manufacturer practice.

### ANCHORAGE (ANCHOR BOLTS)

- Four anchor bolts furnished with nuts and washers unless otherwise specified.
- Anchor bolts meet or exceed 55,000 psi minimum yield strength.
- Threaded end galvanized (minimum 8 inches) per ASTM A-153 unless otherwise specified.
- Fully galvanized anchor bolts may be available upon request.

## Engineering Guidance

EPA Guidance

### HOW EPA GUIDES YOUR SELECTION

Effective Projected Area (EPA) is the calculated wind load requirement for all equipment you plan to mount on the pole. To ensure your project remains structurally sound and provides stable images for sensitive surveillance optics, consider the Total System EPA, including solar panels, cameras, mounting arms, and any wireless equipment.

### THE 100 MPH BASELINE

The technical specifications in the tables represent the maximum EPA capacity at a 100 MPH wind velocity based on AASHTO standards. Use these values to determine which pole height and butt diameter are appropriate for your equipment load.

### PROJECT PLANNING TOOL

Because every solar project is unique, use our Solar Camera EPA & Wind Load Calculator to estimate your Total System EPA and support pole selection.

[Open Solar Camera EPA & Wind Load Calculator](#)

### CRITICAL SELECTION ADVISORIES

- **Wind Zone Variations:** Allowable EPA capacity changes based on geographic location. A pole rated at 100 MPH will have different capacity in 120 MPH or 140 MPH zones.
- **Vibration Prevention:** Poles should not be installed without intended equipment (panels/luminaires). For high steady-state winds, consider a vibration damper.
- **Installation Integrity:** Anchor base poles require high-strength non-shrink grout between base plate and concrete foundation to maintain the structural wind warranty.

[www.CameraPoles.org](http://www.CameraPoles.org)

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