

## Pre-Engineered Structures

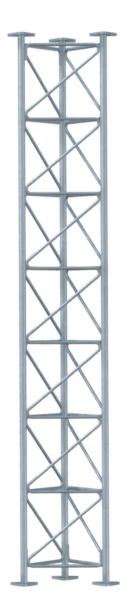
### **1800 SRWD Freestanding & Bracketed Towers**

Use: These pre-engineered towers are designed to be utilized for a number of communication applications. Strength and efficient design make this tower the premier all solid, 18" face structure in the industry.

Design: All towers are designed per ANSI/TIA/EIA-222-F-1996. Built with 1.25" or 1.50" solid round legs and ½" solid serpentine bracing, these pre-engineered towers are offered in 5' & 10' sections and will support the antenna loads as specified on pages 68 and 72.

Materials that are included with each structure: Complete tower steel & hardware and one(1) foundation design based on normal 4000 psf soil. (Other accessory items are available upon customer request.)

Tower Profile	
EPA Load Range (sq. ft.)	See Pages 68 and 72
Load Location	Тор
Maximum Height	85' Freestanding / 125' Bracketed
Minimum Height	10' Freestanding / 20' Bracketed
Standard 10' Section Weight (lbs.) (Galv.)	199.23 (1.25" leg) / 253.68 (1.50" leg)
Maximum # of Lines on a Face	2- %" Lines per Face (6 - total)
Leg Size	1.25" and 1.50"
Leg Type	Solid Round
Leg Connection	Three Hole Bolted Flange
Bracing Size	1/2"
Bracing Type	Solid Serpentine
Brace Connection	Welded
Engineering	Pre-Engineered
Climbing Application	Incorporated into Tower Face
Type of Line Support	N/A - Attach directly to bracing members
Sector Mount Compatible	No
Platform Compatible	No
Maximum Sidearm Length	6' Max







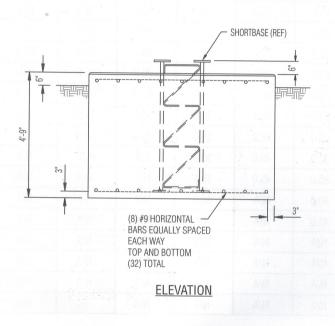
<sup>1)</sup> The allowable projected area values are actually Effective Projected Area (EPA) values. EPA is the actual area "seen by the wind" of an appurtenance (antenna, mount, etc.) multiplied by a force coefficient. It is not necessarily the value published by the appurtenance manufacturer. Please refer to page 15 of this Catalog for a further explanation of and some guidelines on how to calculate EPA.

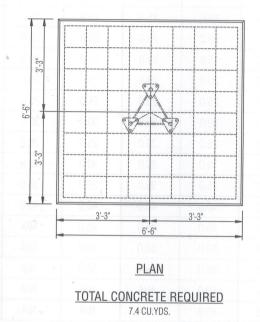
<sup>2)</sup> ANSI/TIA/EIA-222-F-1996 recommends that designs be evaluated by a registered professional engineer for each specific application.

<sup>3)</sup> The 1800 SRWD is also available as a custom engineered guyed tower.

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1800 SRWD - Tower Sections
Freestanding Application
Short Base Mat Foundation Design
For EIA Normal 4000 PSF Soil





### **General Foundation Notes:**

- Concrete to conform to the requirements of ACI 318-02 and shall have a minimum 28 day compressive strength of 3,000 psi. All concrete is to be placed against undisturbed soil free of water and any foreign materials.
- Rebar to conform to the requirements of ASTM Specification A615 Grade 60. All rebar to have a minimum of 3" concrete cover.
- 3) All exposed concrete corners to be chamfered 3/4".
- 4) Foundations designed in accordance with ANSI/TIA/EIA-222-F-1996 using the following:
  - 1/3 allowable stress increase considered
  - Allowable net vertical bearing capacity = 4000 psf
  - Allowable net horizontal pressure = 400 psf/ft. depth (to a maximum of 4000 psf)
  - Soil density = 100 pcf
  - Concrete density = 150 pcf
  - Water table located below bottom of foundation
  - Frost depth less than depth to bottom of foundation
  - For uplift capacity, weight of foundation plus weight of soil enclosed within an inverted pyramid or cone whose sides form an angle of 30 degrees with the vertical.
- 5) A soil analysis should be performed to determine the appropriate site specific parameters to be used for design of the foundations. Foundation designs should be evaluated by a competent registered professional engineer for each particular application.



