

Load Data 12" Tower

| | K=1.0 | K=1.25 | K=1.5 | K=2.0 |
|-------------|------------------|------------------|------------------|------------------|
| height (ft) | axial load (lbs) | axial load (lbs) | axial load (lbs) | axial load (lbs) |
| 10 | 17977 | 14732 | 14732 | 14732 |
| 15 | 17952 | 13084 | 13084 | 13084 |
| 20 | 17926 | 11436 | 11436 | 8764 |
| 25 | 17901 | 9788 | 8542 | 4749 |
| 30 | 17875 | 7098 | 4882 | 2679 |
| 35 | 17850 | 4106 | 2797 | 1495 |
| 40 | 13650 | 2279 | 1520 | 766 |
| 45 | 10717 | 1102 | 695 | 290 |

If a point is "held in position, but not restrained in direction", then it can be considered as "pinned".

If a point is "held in position and restrained in direction", then it can be considered as "fixed".

Table 1: Factors to determine effective lengths of towers.

Effectively held in position at both ends, but not restrained in direction. $K = 1.0$

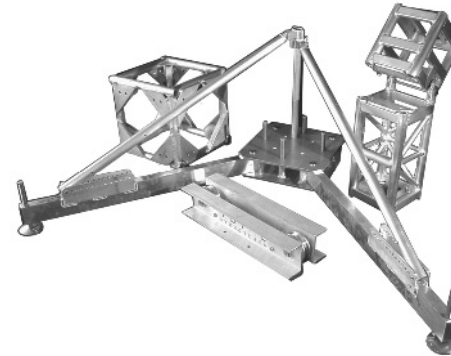
Effectively held in position at one end, and restrained in direction at both ends. $K = 1.25$

Effectively held in position and restrained in direction at one end, and partially restrained in direction but not held in position at the other end. $K = 1.5$

Effectively held in position and restrained in direction at one end, but not held in position or restrained at the other end. $K = 2.0$

Truss manufactured by Total Structures Inc. is designed in accordance with the "Specifications for Aluminum Structures" by the Aluminum Association Inc.

The user should refer to "Operating manual for Modular Aluminum Truss and Tower Sections" and the "Operating manual for Demountable Aluminum Roof Top Structures" where applicable.



Ground Support is the industry standard means of supporting truss grids, where flying points are not available. The 12 inch tower interfaces with most types of Total Structures truss in both indoor grids and outdoor roof structures. A full set of associated parts are available and include headblocks, bases, stabilizers and hinges. Please refer to structural calculations for allowable loads for various applications.

Component Weights

| Part No | Description | WT (lbs) |
|---------|--|----------|
| GST10F | 10ft. Tower Bolted Connection | 66 |
| GST8F | 8ft. Tower Bolted Connection | 56 |
| GST5F | 5ft. Tower Bolted Connection | 41 |
| GST3M | 3m Tower Bolted Connection | 66 |
| GST2M | 2m Tower Bolted Connection | 49 |
| GST1M | 1m Tower Bolted Connection | 32 |
| GSTHN | Hinge tower section Bolted Connection | 56 |
| HGSTPN | Head Block | 31 |
| GSTB | Base unit | 40 |
| GSTS | Set of adjustable stabilizers W/braces (4 per set) | 53 |

