

# Station Solutions®

by Environmental Interiors, Inc.

## TORSION SPRING CEILING SYSTEMS

*Accessible Metal Ceilings Delivering  
Visionary Design Flexibility Through  
a Wide Variety of Geometries, Planes,  
Perforations and Finishes Featuring:*

- **Steel or aluminum interior panels and engineered suspension systems**
- **Engineered exterior wind load systems**
- **100% Single panel accessibility**
- **Remarkable sound control**
- **Allows for integration of lighting coves, fascias, reveals and a host of other design and function elements**
- **Green Building Compliant and IAQ Friendly**
- **Guaranteed installed pricing at time of design**
- **Applications include:**  
*Transportation Terminals & Stations,  
Convention & Civic Centers, Museums,  
Performing Arts Centers and any high  
visibility space requiring a highly  
functional architectural statement*

### ACOUSTICAL RATINGS

- **NRC** Noise Reduction Coefficient of 0.70-1.00 (varies by perforation pattern & acoustical media)
- **STC** Sound Transmission Coefficient  
Metal and composite backers available for a STC of 40-44

### FIRE RATINGS

Panels shall have a class A rating when tested in accordance with ASTM E84



### Panel Sizes and Options

- ▶ Metal planks from 4" to 30" wide and from 8" to 144" long
- ▶ Metal tiles form 12" x 12" to 30" x 30"
- ▶ Multiple panel geometries and ceiling planes
- ▶ Concave, convex and spherical panels
- ▶ Perforated, Unperforated, Grating, etc.

### Material Thickness and Composition

- ▶ 0.028" to 0.105" galvanized steel
- ▶ 0.032" to 0.190" aluminum (3003 H14 or 5005 alloy)
- ▶ 0.028" to 0.105" Type 304 stainless steel

### Perforation Patterns

- ▶ Round holes on straight or staggered centers
- ▶ Rectangular or oval slots on straight or staggered centers
- ▶ Custom patterns are also available

### Acoustical Media / Backers

- ▶ Non-woven acoustical backer and/or Class A encapsulated fiberglass pad
- ▶ Composite and/or metal backers for STC Rating

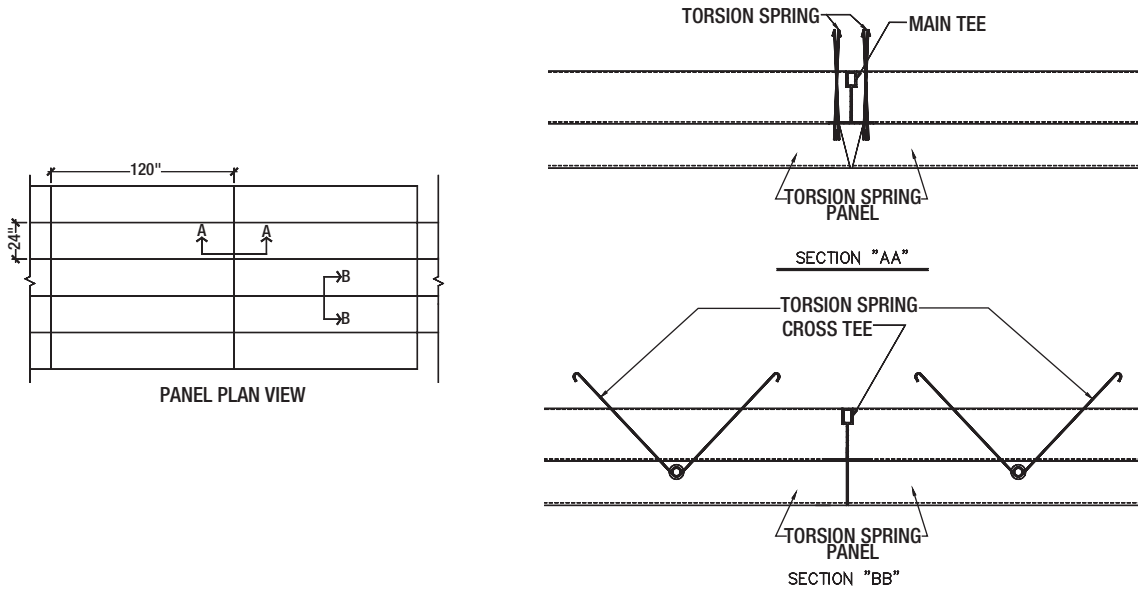
### Finishes

- ▶ Pre-coated polyester baked enamel paint
- ▶ Pre-coated metallic paint
- ▶ High-performance powder coat
- ▶ Polyvinylidene Fluoride - 70% Floropolymer PVDF
- ▶ Brushed & Satin finishes
- ▶ Decorative/Textured finishes
- ▶ Mirror finishes



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# SECTIONS & DETAILS



# SPECIFICATIONS

## STATION SOLUTIONS® SPECIFICATION Torsion Spring Ceiling System

### 1.0 SCOPE OF WORK

- 1.1 WORK INCLUDES: This specification covers material, installation, and related requirements for the Metal Ceiling System - including all necessary acoustical insulation, suspension systems and fasteners.
- 1.2 RELATED WORK: The following items of related work are not included in this Section of the specification.
  - 1.2.1 -Ceiling Lighting systems, their components, installation, or support systems.
  - 1.2.2 -Ceiling Air Supply and Return Systems; their components, installation, or support systems.

### 2.0 SUBMITTALS

- 2.1 A manufacturer's certification of compliance with the acoustical performance required under Section 4.6 of this specification.
- 2.2 After award of contract, shop drawings shall be submitted and approved prior to fabrication of the ceiling panels or their structural support.
- 2.3 One (1) 1' x 1' assembled sample of each typical ceiling type panel and its suspension system shall be submitted for approval.
- 2.4 Manufacturer's Product Data and Installation Instructions.

### 3.0 FIELD CONDITIONS: The ceiling contractor shall verify all dimensions, elevations, and job site conditions before fabrication commences.

### 4.0 PRODUCT COMPONENTS

- 4.1 The Metal Ceiling System is to be fabricated and installed in accordance with manufacturer's approved shop drawings. Metal planks shall be factory formed from (.028"- .105" Galvanized Steel, .032" - .190" Aluminum, or .026"- .105" Stainless Steel)
- 4.2 Metal Ceiling Panels shall be formed in width and length as shown on reflected ceiling plans.
- 4.3 The Metal Ceiling Panels shall be downward accessible with a minimum of four (4) torsion springs per panel.
- 4.4 The Metal Ceiling Panels shall be die formed for a single sheet and with a minimum 1 -1/2" return edge on all panel sides. Objectionable deflection (not to exceed 1/2" or L/360 of overall ceiling dimension, whichever is smaller, in any room or area) will not be accepted. Oil canning, indentations, marks or defacing of the exposed surface of the metal ceiling panel will not be accepted.
- 4.5 Perforations: Select from manufacturer's selection of patterns.
- 4.6 Sound absorbing materials to be factory installed black, non-woven fabric with Class 1 fire-rating installed in metal ceiling panel. Perforated panels with absorbing material to achieve an NRC or 0.70 additional layer(s) of acoustical insulation to achieve NRC 1.00
- 4.7 The Metal Ceiling System suspension: Support members shall be Heavy Duty concealed suspension and shall consist of all necessary clips and splices required for a complete system as required to meet local building codes and erected in accordance with ASTM C 636. Level main support members to within tolerance of 1/8" in 10'-0". Splay hangers where necessary and counter splay to balance resulting horizontal forces.
- 4.8 Finish units flush and level with joints in alignment. Maintain direction of pattern and mill-run of units in one direction.

### 5.0 FINISHES

- 4.9 Finish ceiling shall be level to within 1/8" in 10'-0" with total accumulated error not to exceed 1/2" or L/960 of overall ceiling dimension, whichever is smaller, in any room or area.

- 5.1 Panels shall have a: Select from the following (Pre-coated Polyester Baked paint, Pre-coated Metallic paint, High-Performance Powder Coated paint, Polyvinylidene Fluoride 70% Floropolymer PVDF, Brushed/Satin Finish, Decorative Textured Finish, Mirror Finish)

- 5.2 Color: (To be selected by architect)

### 6.0 MATERIAL PROTECTION AND INSTALLATION

- 6.1 MATERIAL PROTECTION: Material shall not be delivered to the job site nor installed until all exterior openings have been closed in and all concrete and other wet works are completed and dry.
- 6.2 SITE INSPECTION: Prior to installation of the metal ceiling system, the general contractor shall verify that the structure and surfaces by other trades are properly built to the dimensions shown on the approved ceiling shop drawings and that the structure is ready to receive the ceiling system. All discrepancies shall be corrected prior to commencing installation.
- 6.3 INSTALLATION: The metal panel ceiling system shall be installed in accordance with ASTM C636, and CISCA (Ceiling and Interior Systems Construction Association) guidelines, in layouts as reflected on the approved shop drawings, all in compliance with the manufacturer's installation instructions. The suspension system and wall moldings shall be installed plumb and level.

### 7.0 QUALITY ASSURANCE

- 7.1 MANUFACTURER QUALIFICATIONS: Company specializing and regularly engaged in the domestic manufacture of metal ceiling panels systems with a minimum of five (5) years experience in the manufacture of metal ceiling systems.
- 7.2 ERECTOR QUALIFICATIONS: Company specializing in the installation of specialty architectural ceiling systems, approved by the manufacturer, and having a minimum of three (3) years experience in the installation of specialty architectural ceiling systems.

### 8.0 ACCEPTABLE MANUFACTURERS

- 8.1 SUSPENDED METAL CEILING SYSTEM: Shall be Station Solutions® Torsion Spring Ceiling System as manufactured by Environmental Interiors, Inc., Hudson, New Hampshire, 03051 800.526.5024, ([www.environmentalinteriors.com](http://www.environmentalinteriors.com)) or equal as approved by architect in accordance with Paragraph 8.2 below.
- 8.2 SUBSTITUTIONS: Metal Panel Ceiling System by other manufacturers may be substituted only after written approval of the architect, such approval being received ten (10) calendar days prior to the bid opening, so long as the proposed system meets all requirements of this specification.