



**Notice:** Consult your local Sound Concepts representative or contact Sound Concepts at 204.783.6297 before specifying any optional or custom element as shape, material, size, and finish limitations can affect feasibility. The options provided in parentheses are not always compatible

**Limitation:** The Torsion Spring Ceiling System is not intended for use in kitchens, food processing, food preparation and cleanroom applications due to potential harsh environments and aggressive sanitation requirements. We recommend an independent evaluation before specifying The Torsion Spring Ceiling System in these areas

### **SECTION 09 51 13 (09510)**

#### **ACOUSTICAL PANEL CEILING**

### **PART 1 GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A.** Drawings and general conditions of contract, including general and supplementary conditions and division 1 specification sections, apply to work of this section

#### **1.02 SUMMARY**

##### **A. Section include**

- a.** Acoustical ceiling panels
- b.** Suspension system
- c.** Wire hangers, fasteners and wall moldings

##### **B. Related sections**

- a.** Section 09 20 00 (09250) – Plaster and Gypsum Board
- b.** Division 23 (15) – Heating, Ventilating and Air Conditioning
- c.** Division 26 (16) – Electrical

##### **A. Alternates**

- a. Prior Approval:** Unless otherwise provided for in the contract documents, proposed product substitutes may be submitted no later than 10 working days prior to the date established for receipt of bids.

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Approval of a proposed substitution is contingent upon the Architect's review of the proposal for acceptability and approved products will be set forth by addenda

- i.** If substitute products that have not been approved by Addenda are included in a bid, the specified products shall be provided without additional compensation
- b. Submittals:** That do not provide adequate information for the product evaluation will not be considered. The proposed substitution must meet all requirements of this section, including but not limited to: Single source materials supplier (if specified in section 1.05); panel design, size, composition, color and finish; suspension system component profiles and sizes; compliance with the referenced standards

### 1.03 REFERENCES

- A. ASTM E 84** "Standard Test Method for Surface Burning Characteristics of Building Materials"
- B. ASTM C 423** "Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method"
- C. ASTM C 635** "Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings"
- D. ASTM C 636** "Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical and Lay-in Panels"
- E. ASTM A 641** "Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire"
- F. ASTM E 1477** "Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by use of Integrating-Sphere Reflectometers"

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### 1.04 SUBMITTALS

- A. Product Data:** Manufacturer's product data and installation instructions
- B. Shop Drawings:** Reflected ceiling plans coordinating penetrations and ceiling mounted items. Show the following details:
  - a.** Details and reflected ceiling plans for the installation of the Acoustical Ceilings Clouds
  - b.** Clearly illustrate all components of the Acoustical Panel Ceiling System suspension and components
  - c.** System assembly details and connections to building components
  - d.** Location and direction of light fixtures, diffusers, speakers and other finish items
  - e.** Framing and support details for work supported by acoustical ceiling suspension system
  - f.** List of materials, dimensions, hanger fastenings and any special details
- C. Samples:** Minimum 6 inch (150 mm) piece of each type and finish with acoustical material and suspension system
- D. Certification:** Manufacturer's certifications that products comply with specified requirements, including laboratory reports showing compliance with specified tests and standards

### 1.05 QUALITY ASSURANCE

- A. Manufacturer & Installer Qualifications:** Provide Acoustical Panel Ceiling System components produced by a single manufacturer with resources adequate to deliver a product of consistent quality in terms of appearance and physical properties for all project scopes and scales without risk of delay or interruption; Installation work to be performed by a firm whose personnel have no less than five (5) years of successful experience on projects of similar size, requirements and complexity

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### 1.06 DELIVERY, STORAGE & HANDLING

- A.** Deliver materials in manufacturer's unopened packages, suitably store to protect against exposure to moisture, sunlight, surface contamination and other unacceptable conditions
- B.** Handle components to prevent damage
- C. Attic Stock**
  - a.** Panels and exposed trims 2%
  - b.** Mounting and suspension components 0.5%

### 1.07 PROJECT CONDITIONS

- A. Environmental requirements at installation**
  - a.** The building shall be enclosed, the air condition system shall be operating with proper filters in place and the proper temperature and humidity conditions shall be stabilized before, during and following installation until Substantial Completion. Building areas to receive ceilings shall be free of construction dust and debris
  - b.** Coordination: Coordinate acoustical ceilings work with installers of related work including but not limited to building insulation, drywall, mechanical and electrical systems

### 1.08 WARRANTY (LIMITED)

- A. Acoustical Panels:** Submit a written warranty executed by the manufacture agreeing to repair or replacement of acoustical panels that fail within the warranty period. Failures include but are not limited to:
  - a.** Acoustical Ceiling Panels: Sagging, warping, rusting and manufacturer's defects
  - b.** Acoustical Ceiling Suspension: Rusting and manufacturer's defects
- B.** Warranty period for Acoustical Ceiling Panels is 1 years from date of Substantial Completion

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### 1.09 MAINTENANCE

- A.** Provide extra acoustical panels and suspension material, matching installed material in manufacturer's original packages and clearly labeled as attic stock as specified in DELIVERY, STORAGE AND HANDLING section
- B.** Deliver extra stock and access tools to owner's representative

## PART 2 PRODUCTS

### 2.01 MANUFACTURE

- A.** Sound Concepts 204.783.6297, customerservice@soundconceptscan.com

### 2.02 MATERIALS

- A. Suspension System:** Type ACT - 1
- B. Product:** TORSION SPRING Suspension System
- C. Components:**
  - a.** Heavy duty, extruded aluminum main runner, cross runner and wall molding
  - b.** Hanger wire, 12 gauge pre-stretched galvanized steel wire
- D. Finish:** The exposed flange of the suspension, wall molding and fixture trim shall be finished to match the panels

### 2.03 MATERIALS

- A. Ceiling Panels:** Type ACT - 1
- B. Type:** TORSION SPRING Acoustical Panel System – Painted acoustical textile, acoustical core with integral aluminum frame and torsion springs
  - a. Acoustical Insulation:** white acoustical textile with (1")(2") fiberglass
  - b. Accessories**
    - i.** Cutouts for down lights, sprinklers and speakers shall be (factory)(field) fabricated
    - ii.** Perimeter trim shall be as indicated on the drawings

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### **c. Performance Characteristics**

- i.** Sound Control: NRC (1.00)(1.05)
- ii.** Flame Spread
  - 1.** 20 per ASTM E 84
  - 2.** Class A per ASTM E 1264
- iii.** Smoke Developed: 30 per ASTM E 84
- iv.** Light Reflectance: EUROMAT White 92.5%

### **d. Surface Texture, Substrate, Size and Edge**

- i.** Surface Texture: fine
- ii.** Surface Finish: Standard EUROMAT White
  - 1.** Options(EUROMAT color\_\_\_)(EUROMATALLIC\_\_\_) (fabric\_\_\_)(vinyl\_\_\_) as indicated in the room finish schedule (Black)(RAL\_\_\_)(Custom\_\_\_)
  - 2.** Finish
    - 1.** (Applied front and all edges with back covered with a foil backed vapor barrier)
    - 2.** (Applied front and all edges with back unfinished)
- iii.** Substrate: 6 pcf fiberglass
- iv.** Size: (24" x 24")(24" x 48")(48" x 48")(60" x 60") (custom up to 48" x 120")
- v.** Configuration: (flat)(curved)
- vi.** Edge: square, 3/16" reveal, extruded aluminum

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A.** Examine construction and conditions under which systems will be installed. Do not proceed with installation until unsatisfactory conditions have been corrected

### **3.02 INSTALLATION**

- A.** All acoustical panels and suspension systems shall be installed in strict accordance with the manufacturer's printed instructions and current recommendations and in compliance with ASTM C 636 and the governing code of jurisdiction

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- B.** Application Consideration: Cutouts are intended for use with audio speakers, air diffusers, sprinklers and certain light fixtures.
- C.** All items attached to or penetrating the ceiling must be independently supported and not supported by the acoustical panels
- D.** Installed panels should be free from damage or defects
- E.** Install partial panels as shown on the reflected ceiling plans but not less than one-half full size

### **3.03 FIELD QUALITY CONTROL**

- A.** Deflection of any suspension component shall not exceed  $\pm 1/8"$  in 12.0'

### **3.04 ADJUSTING & CLEANING**

- A.** Clean acoustical ceiling including trim, edge moldings and suspension members pursuant to manufacturer's recommendations. Remove and replace damaged components that cannot be restored.

**End of Section 09 51 13 (09510)**

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