

**NOTE TO SPECIFYING ARCHITECT  
REGARDING SECTION 11077  
PIPE GRID SYSTEM**

1. This specification is for a standard pipe grid for use over stages, TV studios and other performance areas such as black box theaters.
2. This specification is appropriate for areas of any size.
3. Phone 800-548-8982 for clarification or assistance. No charge, of course.

**SECTION 11077  
PIPE GRID SYSTEM**

**PART 1—GENERAL**

**1.01 RELATED DOCUMENTS**

- A. The provisions of the General Conditions, Supplementary Conditions, and the Section required under Division 1, the General Requirements, are included as a part of this section as though bound herein.

**1.02 SUMMARY**

- A. Provide labor, materials and equipment necessary to provide the pipe grid as indicated.
- B. Related work as specified elsewhere:
  - 1. Section 05100—Structural Metal Framing
  - 2. Section 09900—Paint
- C. Refer to Section 01030—Alternatives that may affect the Work of this Section.

**1.03 PERFORMANCE REQUIREMENTS**

- A. Pipe grid shall withstand structural loads indicated using allowable design working stresses of material specified. Pipe grid shall be designed for a live load of 10 pounds per square foot. Factor of safety shall be 8.

**1.04 SUBMITTALS**

- A. Shop drawings indicating layout, design details, materials, and method of construction.

**1.05 QUALIFICATIONS**

- A. Installer Qualifications: Installer shall be experienced in providing and installing equipment of the kind indicated and shall have a record of successful in-service performance.

**PART 2—PRODUCTS**

**2.01 MATERIALS AND COMPONENTS**

- A. Pipe grid shall be installed at elevation appropriate for the function approved by the architect.
- B. Pipe grid shall consist of 2 sets of pipe battens installed (in plan) perpendicular to each other. Individual pipe battens in each set shall be located on 5-foot centers. End of pipe battens shall rest on clip angles (3" x 2" x ¼") on all sides of studio that have masonry walls secured in place by means of "U" bolts at ends of pipes.
- C. Pipe battens that compose the grid (in both directions) shall consist of 1½" O.D. steel pipe (schedule 40) with battens that span from wall to wall or as shown in the drawings.

**2.02 HANGERS**

- A. Grid shall be supported by means of ¼-inch welded link proof coil chain hangers or as detailed. Entire grid shall be assembled into a unit structure. Hangers shall be located on centers not to exceed 10 feet.
- B. At every point where pipe battens intersect (in both directions) a fitting shall connect the two perpendicular pipes into a rigid assembly.
- C. Secure hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperature. Attach hangers to structural members. After installation this contractor shall test working parts, correcting any items needing adjustment to assure easy and efficient operation.

### 2.03 LOADS

- A. Pipe batten loads shall be referred to the overhead structure. Miscellaneous angles and channels as required shall be provided to refer the hanger loads to the structure.
- B. Fittings that connect the pipe battens at each intersection shall be formed to the precise size of the pipe battens and the two halves of the fitting shall be bolted together with (4) 3/8-inch, grade 5 bolts secured with lock nuts.

## PART 3—EXECUTION

### 3.01 INSTALLATION

- A. Coordinate work with other trades doing adjoining work to assure proper fit, installation, and first class results.
- B. Where width of ducts and other building equipment interferes with locations of hangers at spacing required by standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support the loads within performance limits.

**END OF SECTION**