

## PIPE GRID SPECIFICATION

### 1.00 PRODUCTS

#### MANUFACTURERS

Due to the highly specialized nature of theatrical rigging equipment, and the safety requirements of the equipment, all equipment must be built by the following approved manufacturer:

IWEISS  
815 Fairview Ave  
Fairview, NJ 07022  
P:201-402-6500  
[Info@iweiss.com](mailto:Info@iweiss.com)

### 1.01 GENERAL

#### Standards:

Materials shall conform to the following ASTM and ANSI standard specifications:

- A-36 - Specification for structural steel
- A-53 - Specification for steel pipe
- A-120 - Specification for black and hot-dipped zinc-coated (galvanized) steel pipe for ordinary use
- Steel - 1/5 of yield
- Bolts - Minimum Grade 5 zinc plated.

#### Fabrication:

The mechanical fabrication and workmanship shall incorporate best practices for good fit and finish. There shall be no burrs or sharp edges to cause a hazard, nor shall there be any sharp corners accessible to personnel.

#### Finishes:

Pipes, pipe clamps and intersection brackets shall all be paint or powder coat black finish color except as noted.

All other hardware shall be in manufactures standard mill finishes.

**Recommended Working Load:** This specification calls for minimum recommended working loads for many hardware items. The manufacturer's recommended working load is the maximum load which the manufacturer recommends be applied to installed hardware. Manufacturer's recommended working loads shall be determined by calculations by a Licensed Professional Engineer and destructive testing by an independent testing laboratory. These calculations and reports shall be available for review.

## 1.02 PIPE GRID

- A. Pipe grids shall be constructed from lengths of 1-1/2" I.D. schedule 40 steel pipe. All joints shall be sleeve spliced with 18" long sleeves with 9" extending into each pipe and held by two 3/8" hex bolts and lock nuts on each side of the joint. Grids shall be installed as indicated on the drawings with pipes intersecting on four foot by four-foot centers.
- B. Intersecting pipes shall be joined with a IWEISS P309 Intersection Bracket.
- C. Each pipe shall terminate just off the wall. Internally sleeved wall plates or flange mount wall plates shall securely brace the grid against the wall once it is in place. Supply sufficient braces to prevent lateral movement of the pipe grid.
- D. Wall Supports shall be IWEISS P311 Telescoping Wall Stabilizer  
  
OR  
  
P310 Wall Flange
- E. Each hanging point shall be supported by a pipe clamp that fully encloses around the perimeter of the pipe, secured with two 3/8" bolts. The pipe clamp shall be IWEISS P305.
- F. The grid shall be rigidly hung from the overhead steel structures on centers not exceeding 8 feet in either direction using 3/8" OR 1/2" Threaded Rod.
- G. Between the pipe clamp and threaded rod a threaded clevis shall be used. The threaded clevis shall be IWEISS TC.375F OR TC.500F, secure with jamming nuts
- H. Attachment to Bar Joist:
  - 1. IWEISS PG-JB-UCLP Shall be used to saddle the top of the bar joist and allow for a compression nut and washer to secure the threaded rod o the steel member.
- I. Attachment to I-Beam
  - 1. IWEISS UN-EB shall be used to clamp to the bottom flange of the I-beam and allow for a compression washer and nut to secure the threaded rod to the strut member.
- J. Attachment to Concrete
  - 1. An appropriately sized anchor, as specified by a structural engineer shall be used to allow for a threaded coupling nut join the threaded rod to the concrete anchor
- K. \_\_\_\_ X \_\_\_\_ dead hung pipe grid.