Point Load Calculation Notes

Institutional Products Inc.
Indianapolis, IN
800.637.7968
www.instprod.com

Model 1350-FF ; 1345-CS ; 1360-FF ; 1370-FF ; 1345-BF

For all of the following discussion review the shop drawings furnished by Institutional Products Inc.

Number of points of attachment: This is the number of points where there are beam clamps and / or drops attaching to the trusses to support each backstop frame component (Note, to be either 2 or 4).

Main Mast (M1 & M2), Dia. Brace (D1 & D2) and Cable Pull (C1 & C2): These are the forces taken from the Load Analysis Calculations attached. The weight of these frame components are added to the load on each attachment point, at each truss, proportionally - based on the Bft. and Fft. dimensions (or Lft. and Rft. dimensions). Note, negative (-) indicates compression.

Cross Pipe (Diagonal Brace, Main Mast, Pulley or Hoist): These frame components may be attached to supporting cross pipes spanning the main support pipes

When trusses are running Parallel to the face of the backboards:
The weight of the support cross pipe and frame component are added to the load on each attachment point, at each pertinent truss, proportionally - based on the Bft. and Fft. dimensions.

When trusses are running Perpendicular to the face of the backboards:
Note, only the diagonal brace can have a supporting cross pipe [CPDB].
The weight of the support cross pipe and the diagonal brace fitting are added to the load on each attachment point, at each truss proportionally - based on the Lft. and Rft. dimensions.

Beam Clamps, Superstructure Drops, Superstructure Diagonal Braces (BT): The weight of each of these items, if applicable, are directly added to the load on each attachment point at each truss.

Cross Pipe - at drops (CPDRL & CPDRR): Normally when there are superstructure drops there are cross pipes spanning the main support pipes to help stabilize the backstops. These are normally near the drops and are added directly to the load on each attachment point at each pertinent truss.

Span Pipe (Trussed (T), Plain (P) or None (N)) (SP): These are the pipes that span the trusses for supporting each component of the backstop frame. If the same pipes are used to support more than one component an "N" is entered in one of the sections. If it is a plain pipe a "P" is entered and 8 lbs. per foot is used to calculate the weight of the pipe. If the pipe is trussed with 1 1/2" pipe a "T" is entered and 11 lbs. per foot is used to calculate the weight of the pipe. The weight of each pipe is equally added to the load on each attachment point at each pertinent truss.

All point loads shown are based on the backstops being in the folded position, if applicable.
All forces shown are based on the truss height and backboard listed on each sheet.
No design factor taken into consideration in any forces or weights shown.
All forces are based on the shop drawing dimensions.

Project Name:	
Project Location:	
IPI Job Number:	