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MEMORANDUM

Date: June 27, 2007

Subject: Using Beam Load Tables

From: Unistrut Engineering

Loads in the Beam Load Tables for UNISTRUT[®] metal framing channel are given as a <u>total</u> uniform load (W) in pounds. For the more familiar uniform load (w) in pounds per foot or pounds per inch, divide the table load by the span.

Loads under the column headings of "Span / 180", "Span / 240" and "Span / 360" are provided for installations in which deflection (sag) of the loaded UNISTRUT[®] channel must be limited. These ratios are standard engineering practice and, when applicable, are usually given by the Professional of Record or the Project Specifications. Actual deflection from these preset ratios equals the span (inches or feet) divided by the number 180, 240 or 360. When designing to one of these deflection limits, the allowed uniform load is generally less than the values under the column heading "Maximum Allowed Uniform Load". For further information or assistance on this issue, contact UNISTRUT[®]

All 5 Notes below the beam load tables must be followed to obtain the final usable load on the channel. Failure to do so produces the wrong working load. These notes require adjustments to the Maximum Allowed Uniform Load for:

- Pierced Channel (if applicable)
- o Unbraced Length
- o Channel Weight
- Midspan Point Loads (if applicable)











Use the following 5 Steps to accurately determine the allowed working load of ${\rm UNISTRUT}^{\rm @}$ channel.

- Step #1 Determine Maximum Allowed Uniform Load from Load Table
- Step #2 Multiple by the Applicable Hole Factor
 - 0.95 for "KO"
 - 0.90 for "HS" & "H3"
 - 0.85 for "SL" & "T"
 - 0.70 for "DS"
- Step #3 Multiply by the Unbraced Length Factor
- Step #4 Subtract Channel Weight
- Step #5 Multiply by 50% for Midpsan Loading, If Applicable.

The result after Step #4 is the net allowed <u>total</u> uniform load in pounds. The result after Step #5 is the allowed midspan point load.