



TECHNICAL DATA

Bending Moments & Stresses –

When loads are placed on a beam, the effect is to flex the beam across its unsupported span. The measure of this effect is called the bending moment. Formulas for bending moments created by various load and beam support combinations are given in the following tables.

BENDING MOMENTS & STRESSES

When the bending moment of a loaded beam is divided by the Section Modulus of the beam, the resulting value is called bending stress. It is this bending stress that is most commonly evaluated to determine whether a beam is strong enough for the loads it must support.

The maximum bending stress prescribed by structural codes is 25,000 psi, and this is the stress upon which PHD load figures are based.

Again, the method of supporting a beam affects the maximum bending moment of the beam. The following table gives modifying factors based upon types of beam supports. Users of PHD struts should take care to apply the proper load factor for the specific beam support configuration in order to determine the proper maximum load that the strut will safely support.

Bracing –

For long spans and when loads are apt to cause torsion on the beam, it is a good practice to brace the beam to prevent twisting or lateral bending. PHD offers various types of braces for this purpose.

BRACING