

DEFLECTION

Deflection is always determined at midspan.

The empirical formula for deflection is:

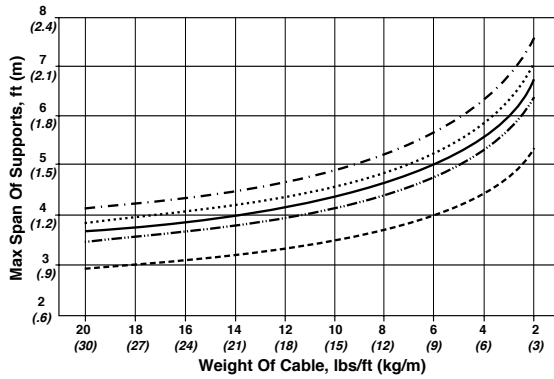
$$D = \frac{131 \cdot W \cdot L^4}{E(OD^4 - ID^4)}$$

- Where:
- D = Midspan deflection (in.)
 - OD = Outside diameter of conduit (in.)
 - ID = Inside diameter of conduit (in.)
 - E = Modulus of elasticity of conduit (psi), which is 1,400,000 for epoxy fiberglass conduit
 - L = Distance between hangers (ft.)
 - W = Total weight of cable and conduit (lbs/ft.)

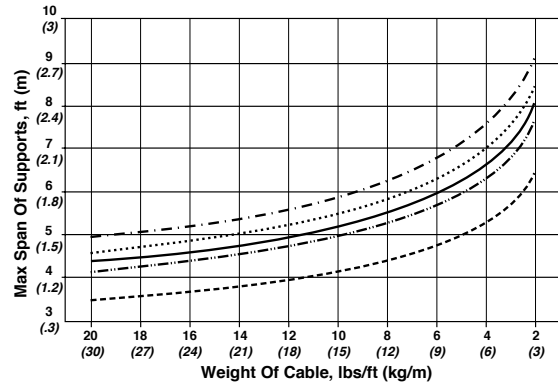
It is recommended that midspan deflection never exceeds $\frac{1}{8}$ inches (16 mm).

Below are easy graphs for determining support distance between hangers for various diameters and wall thicknesses of conduit.

3/4" SW DIAMETER



1" SW DIAMETER



1/4" (6) Deflection

1/2" (13) Deflection

5/8" (16) Deflection

3/4" (19) Deflection

1" (25) Deflection