

ROLLING GRILLE WEIGHT CALCULATIONS

All overhead rolling grilles manufactured by **DYNAFLAIR** are fully self-supporting. The structural steel support tubes provided by **DYNAFLAIR** support all the weight. Tubes are braced at the top for **lateral support only**. At times, it is necessary to calculate the stress load on the slab below. Here are the necessary weights and formulas for the stress calculations.

Steel Support Tubes:

3" X 3" X 20' steel support tube = 94 pounds

4" X 4" X 20' steel support tube = 128 pounds

Barrel Assemblies:

6 5/8" diameter barrel = 20 pounds per lineal foot

8 5/8" diameter barrel = 24 pounds per lineal foot

Curtain Weights:

Legionaire (9" spacing) = 0.831 pounds per square foot

Legionaire (6" spacing) = 0.892 pounds per square foot

Dynaplex = 1.1 pounds per square foot

Dynavue = 3.0 pounds per square foot

Debonaire = 0.89 pounds per square foot

Belair = 1.0 pounds per square foot

Shutter = 1.7 pounds per square foot

Bottom bar - 2 pounds per lineal foot

Endplates and misc. hardware add 50 pounds.

Motor operated grilles add 120 pounds

Example:

A "Legionaire" grille that is 16'0" wide X 12'0" high.

3" X 3" support tubes = 188 pounds

6' 5/8" barrel assembly = 16' X 20 pounds = 320 pounds

Curtain = 16' X 13'6" (to top of coil) = 216 square feet X 0.831 = 180 pounds

Bottom bar = 36 pounds

Endplate and misc. hardware = 50 pounds

Total grille weight = 774 pounds