

ENVIRO-BEAM™ SPAN/LOAD TABLE

EB10-1.5-43

10 " DEPTH

Steel Shape ¹ (2) 1000T150-43

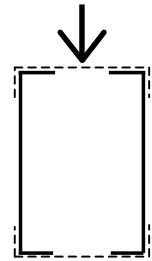
Steel thickness: 43 mil (0.0451 in - 18 ga)

Flange Width: 1.5 in

Section Properties: I: 12.39 in⁴
S: 1.67 in³

Fy: 33 ksi

Max. Allowable Bending Moment ⁶ : Ma: 2756 lb-ft
Max. Allowable Beam Shear: Va: 1645 lb



| Span ³ (ft) | Maximum Allowable Uniformly Distributed Vertical Loads ² Pounds per Lineal Foot (lb/ft) | | | | | Deflection Due to Critical Load (in) | |
|---------------------------|---|----------------------|------------|--|---------------|--------------------------------------|--|
| | Load Controlled by: | | | Critical Uniformly Distributed Load ^{4,5,6,7} | S, B or L/240 | L/360 | |
| | Shear | Bending ⁶ | Deflection | | | | |
| | | | L/240 | L/360 | | | |
| 5 | 658 | 882 | 6388 | 4259 | 658 | 0.03 | |
| 6 | 548 | 612 | 3697 | 2464 | 548 | 0.04 | |
| 7 | 470 | 450 | 2328 | 1552 | 450 | 0.07 | |
| 8 | 411 | 344 | 1560 | 1040 | 344 | 0.09 | |
| 9 | 365 | 272 | 1095 | 730 | 272 | 0.11 | |
| 10 | 329 | 220 | 798 | 532 | 220 | 0.14 | |
| 11 | 299 | 182 | 600 | 400 | 182 | 0.17 | |
| 12 | 274 | 153 | 462 | 308 | 153 | 0.20 | |
| 13 | 253 | 130 | 363 | 242 | 130 | 0.23 | |
| 14 | 235 | 112 | 291 | 194 | 112 | 0.27 | |
| 15 | 219 | 98 | 237 | 158 | 98 | 0.31 | |
| 16 | 206 | 86 | 195 | 130 | 86 | 0.35 | |
| 17 | 193 | 76 | 163 | 108 | 76 | 0.40 | |
| 18 | 183 | 68 | 137 | 91 | 68 | 0.45 | |
| 19 | 173 | 61 | 116 | 78 | 61 | 0.50 | |
| 20 | 164 | 55 | 100 | 67 | 55 | 0.55 | |

Web-Height to thickness ratio exceeds 200. Flange-Bearing Web Stiffeners are required at all support points and concentrated loads. Stiffeners shall be designed by a qualified professional for the specific project conditions.

Notes:

- Section designations and geometry are based on standard shapes defined by the Steel Stud Manufacturers Association (SSMA). Section properties are based on the 2001 NAS Specification.
- All loads are service loads
- Tables are extended to a maximum span/depth ratio of 24.
- Critical Load is the lowest uniform load capacity based on Bending, Shear or Deflection.
- Top and bottom tracks are required for proper stability of Enviro-Beam headers. Top and bottom tracks are not a part of the Enviro-Beam header and must be designed by a qualified professional and be properly fastened to the flanges of the Enviro-Beam. As a minimum, top and bottom tracks shall be at least the same gauge as the Enviro-Beam header.
- Bending capacities are based on the assumption that the compression flange is adequately laterally braced by a top track section. Lateral (wind or seismic) loads are assumed to be resisted by the top and bottom tracks and not by the Enviro-Beam header itself.
- When Enviro-Beam header is supported by bearing on steel studs, stiffened end is required to resist web crippling. When end support is by screwed side plate connectors, stiffened end is not required. See stiffened end detail.