## CHANNEL

H-142-OS 13/8" X 15/8"
12 Gauge Channel
wt./100 ft. - 171\#
9/16 x 1-1/8" Holes on 2" Centers


## Supr-Green Powder Finish

## SECTION PROPERTIES

| Gatalog <br> No. | Wt./Ft. | Area of <br> Lbs. | Xection Axis |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | $\mathrm{I} \mathrm{in}^{4}$

$\mathrm{I}=$ Moment of Inertia $\quad \mathrm{S}=$ Section Modulus $\quad \mathrm{r}=$ Radius of Gyration

| Span <br> (In) | Static Beam Load (X-X Axis) |  |  |  |  |  |  | Max. Allowable Load at Slot Face (Lbs) | ```Column Loading Data Max. Column Load Applied at C.G.``` |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Max <br> Allowable Uniform Load (Lbs) | Deflection at Uniform Load (In) | Uniform Load at Deflection |  |  |  |  |  |  |  |  |  |
|  |  |  | Span/180 Defilection (Lbs) | Span/240 Defilection (Lbs) | Span/360 Defilection (Lbs) | Weight of Channel (Lbs) | Unbraced Height (ln) |  | $\begin{aligned} & k=.65 \\ & \text { (Lbs) } \end{aligned}$ | $\begin{aligned} & k=.80 \\ & \text { (Lbs) } \end{aligned}$ | $\begin{aligned} & \mathrm{k}=1.0 \\ & \text { (Lbs) } \end{aligned}$ | $\begin{aligned} & \mathrm{k}=1.2 \\ & \text { (Lbs) } \end{aligned}$ |
| 12 | 2,660 | 0.02 | 2,660 | 2,660 | 2,660 | 1.8 | 12 | 3,450 | 11,080 | 10,810 | 10,390 | 9,940 |
| 18 | 1,770 | 0.04 | 1,770 | 1,770 | 1,770 | 2.6 | 18 | 3,310 | 10,450 | 9,940 | 9,220 | 8,510 |
| 24 | 1,330 | 0.07 | 1,330 | 1,330 | 1,330 | 3.5 | 24 | 3,140 | 9,700 | 8,980 | 8,060 | 7,220 |
| 30 | 1,060 | 0.10 | 1,060 | 1,060 | 860 | 4.4 | 30 | 2,960 | 8,930 | 8,060 | 7,030 | 6,140 |
| 36 | 890 | 0.15 | 890 | 890 | 600 | 5.3 | 36 | 2,780 | 8,170 | 7,220 | 6,140 | 5,260 |
| 42 | 760 | 0.20 | 760 | 660 | 440 | 6.2 | 42 | 2,600 | 7,470 | 6,480 | 5,400 | 4,510 |
| 48 | 670 | 0.26 | 670 | 500 | 340 | 7.0 | 48 | 2,430 | 6,840 | 5,830 | 4,750 | 3,890 |
| 60 | 530 | 0.41 | 430 | 320 | 220 | 8.8 | 60 | 2,110 | 5,760 | 4,750 | 3,710 | 3,010 |
| 72 | 440 | 0.59 | 300 | 220 | 150 | 10.6 | 72 | 1,830 | 4,870 | 3,890 | 3,010 | 2,340 |
| 84 | 380 | 0.81 | 220 | 160 | 110 | 12.3 | 84 | 1,600 | 4,130 | 3,260 | 2,470 | ** |
| 96 | 330 | 1.06 | 170 | 130 | 80 | 14.1 | 96 | 1,410 | 3,550 | 2,790 | 1,890 | ** |
| 108 | 300 | 1.34 | 130 | 100 | 70 | 15.8 | 108 | 1,230 | 3,100 | 2,340 | ** | ** |
| 120 | 270 | 1.65 | 110 | 80 | 50 | 17.6 | 120 | 1,070 | 2,740 | 1,890 | ** | ** |
| 144 | 220 | 2.38 | 70 | 60 | 40 | 21.1 | 144 | ** | 1,990 | ** | ** | ** |
| 168 | 190 | 3.23 | 50 | 40 | 30 | 24.6 | 168 | ** | ** | ** | ** | ** |
| 180 | 180 | 3.71 | 50 | 40 | NR | 26.4 | 180 | ** | ** | ** | ** | ** |
| 192 | 170 | 4.22 | 40 | 30 | NR | 28.2 | 192 | ** | ** | ** | ** | ** |
| 216 | 150 | 5.35 | NR | NR | NR | 31.7 | 216 | ** | ** | ** | ** | ** |
| 240 | 130 | 6.60 | NR | NR | NR | 35.2 | 240 | ** | ** | ** | ** | ** |

NR = Not Recommended
** Not recommended - KL/r exceeds 200

## NOTES

1. The beam capacities shown above include the weight of the strut beam. The beam weight must be subtracted from these capacities to arrive at the net beam capacity.
2. Allowable beam loads are based on a uniformly loaded, simply supported beam. For capacities of a beam loaded at midspan at a single point, multiply the beam capacity by $50 \%$ and deflection by $80 \%$.
3. The above chart shows beam capacities for strut without
holes. For strut with holes, multiply by the following:
$\geq$ OS by $88 \%$, OS3 by $90 \%$, RS $9 / 16$ by $88 \%$, RS-MOD $3 / 4$ by $85 \%$, KO by $82 \%$.
4. Refer to page 50 for reduction factors for unbraced lengths \# Bearing Load may limit load
