- B FORMLOK used with TSWs or BPs
- B FORMLOK-SS used with Screws


## Dimensions



B FORMLOK-SS


## Deck Weight and Section Properties

| Gage | Weight |  | $I_{d}$ for Deflection |  | Moment |  | Allowable Reactions per ft of Width (Ib) due to Web Crippling One Flange Loading Two Flange Loading |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Galv | Painted | Single Span | Multi Span |  |  | End Bearing Length |  |  | Interior Bearing Length |  | End Bearing Length |  |  | Interior Bearing Length |  |
|  | (psf) | (psf) | (in.4/ft) | (in.4/ft) | (in.3/ft) | (in.3/ft) | 2" | $3 "$ | 4" | 3" | 4" | 2" | $3{ }^{\prime \prime}$ | 4" | 3" | 4" |
| 22 | 1.9 | 1.8 | 0.177 | 0.192 | 0.176 | 0.188 | 935 | 1076 | 1163 | 1559 | 1671 | 962 | 1078 | 1150 | 1935 | 2084 |
| 20 | 2.3 | 2.2 | 0.219 | 0.231 | 0.230 | 0.237 | 1301 | 1492 | 1609 | 2190 | 2340 | 1413 | 1576 | 1675 | 2744 | 2947 |
| 18 | 2.9 | 2.8 | 0.302 | 0.306 | 0.314 | 0.331 | 2181 | 2484 | 2667 | 3714 | 3950 | 2551 | 2823 | 2987 | 4713 | 5038 |
| 16 | 3.5 | 3.4 | 0.381 | 0.381 | 0.399 | 0.410 | 3265 | 3699 | 3955 | 5607 | 5938 | 4018 | 4422 | 4660 | 7168 | 7631 |

Notes:

1. Section properties are based on $F_{y}=50,000$ psi.
2. $I_{d}$ is for deflection due to uniform loads.
3. $\mathrm{S}_{\text {eff }}(+$ or - ) is the effective section modulus.
4. Allowable (ASD) reactions are based on web crippling, per AISI S100 Section C3.4, where $\Omega_{w}=1.70$ for end bearing and 1.75 for interior bearing. Nominal reactions may be determined by multiplying the table values by $\Omega_{w}$. LRFD reactions may be determined by multiplying nominal reactions by $\phi_{w}=0.9$ for end reactions and 0.85 for interior reactions.

## Attachment Patterns to Supports



Note: O indicates location of arc spot weld, power actuated fastener, or screw as indicated in the load tables. indicates location of arc seam weld, power actuated fastener, or screw as indicated in the load tables.


## Footnotes for Maximum Unshored Clear Span, Allowable Superimposed Loads, and Allowable Diaphragm Shear Strength Tables

1. Shoring calculations are based on the following:

- Deck supporting dead load of concrete plus 20 psf uniform construction load or 150 pound concentrated construction live load for flexure. 4 psf is added for normal weight concrete and 3 psf is added for light weight concrete to account for ponding due to deck deflection between support members.
- Dead load deflection limited to L/180 of span length, not to exceed $3 / 4$ ".
- Minimum end and interior bearing of 2 ".

2. Concrete fill to have minimum 28 -day compressive strength $\mathrm{f}^{\prime} \mathrm{C}=3,000 \mathrm{psi}$.
3. Total slab depth is nominal depth from top of concrete to bottom of steel deck.
4. Shoring is required at midspan for allowable superimposed loads in the shaded area to the right of the heavy line.
5. Nominal diaphragm shear strengths may be determined by multiplying the tabulated strengths by $\Omega=3.0$. LRFD diaphragm shear strength may be determined by multiplying nominal diaphragm shear strength by $\phi=0.55$.
6. To obtain allowable diaphragm shear strengths using mechanical fasteners, multiply the tabulated strengths by the appropriate adjustment factor, $\mathrm{A}_{\mathrm{q}}$ listed in the following table.

| Attachment Pattern | Adjustment Factor | Total Slab Depth (in.) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Normal Weight Concrete |  |  |  |  | Light Weight Concrete |  |  |  |
|  |  | $31 / 2$ | 4 | $41 / 2$ | 5 | 6 | $31 / 2$ | 4 | $43 / 4$ | $53 / 4$ |
| 36/4 | $\mathrm{A}_{\mathrm{q} 4}$ | 0.60 | 0.66 | 0.68 | 0.62 | 0.53 | 0.46 | 0.53 | 0.62 | 0.69 |
| 36/7 | $\mathrm{A}_{\mathrm{q} 7}$ | 0.49 | 0.57 | 0.62 | 0.66 | 0.72 | 0.38 | 0.44 | 0.52 | 0.61 |

## Notes:

a. Mechanical fastener attachment patterns are to match the listed attachment patterns for welds.
b. Applicable mechanical fasteners are limited to the following: Hilti Fasteners, Pneutek Fasteners and SDI Recognized \#12 or \#14 Screws produced by Buildex, Elco, Hilti or Simpson Strong-Tie. Comply with minimum and maximum substrate thickness requirements for applicable mechanical fasteners. Note that these adjustment factors are based on the most conservative value for all listed connectors.
c. Nominal diaphragm shear strengths for mechanically fastened FORMLOK slabs may be determined by multiplying the adjusted tabulated strengths by $\Omega=3.25$. LRFD diaphragm shear strengths for mechanically fastened FORMLOK slabs may be determined by multiplying the adjusted nominal strengths by $\phi=0.50$.
d. Consult fastener manufacturer for applicable fire-resistance assembly ratings where mechanical fasteners are required.

