

CFI-JOIST

BUILD WITH CONFIDENCE

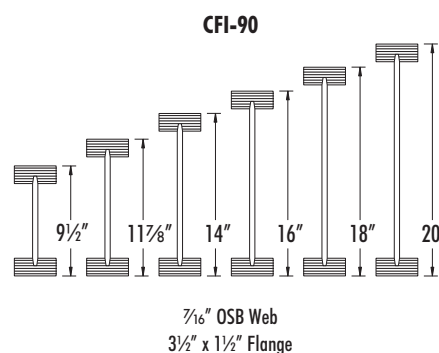
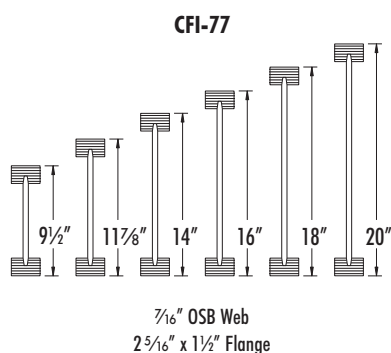
Pacific Woodtech's Concrete Forming I-joists (CFI's) are made with a purpose – safety and quality first. Because the loads on concrete forming projects are often 3 to 4 times the magnitude of residential projects, there are important distinctions between a CFI and a “stock residential” I-joist. For example, the ‘pre-punched’ knockouts found in residential I-joists, which can cause weakness, have been eliminated to ensure a safe work place.

Exposure to the environment is also a very important factor to consider, and concrete forming products are subject to high moisture levels which must be accounted for in the design.

Pacific Woodtech understands these risks and stands behind all of its concrete forming products, with a full Manufacturer's Warranty, for this use. No other residential manufacturer can make that claim. Ask for yourself!



JOIST DIMENSIONS



DESIGN VALUES

REFERENCE DESIGN VALUES⁽¹⁾

| Joist Series | Joist Depth | EI ⁽²⁾ [x 10 ⁶ lb-in ²] | k ⁽³⁾ [x 10 ⁶ lb] | M ⁽⁴⁾ [ft-lb] | V ⁽⁵⁾ [lb] | ER ⁽⁶⁾ [lb] | IR ⁽⁷⁾ [lb] |
|--------------|-------------|---|--|-----------------------------|--------------------------|---------------------------|---------------------------|
| CFI-77 | 9 1/2" | 261 | 6.08 | 5155 | 1430 | 1430 | 2695 |
| | 11 7/8" | 442 | 7.60 | 6675 | 1925 | 1760 | 2695 |
| | 14" | 648 | 8.96 | 7960 | 2125 | 1760 | 2695 |
| | 16" | 881 | 10.24 | 9120 | 2330 | 1760 | 2695 |
| | 18" | 1152 | 11.52 | 10265 | 2535 | 1760 | 2695 |
| | 20" | 1463 | 12.80 | 11395 | 2740 | 1760 | 2695 |
| CFI-90 | 9 1/2" | 392 | 6.08 | 7915 | 1430 | 1430 | 2860 |
| | 11 7/8" | 661 | 7.60 | 10255 | 1925 | 1900 | 3355 |
| | 14" | 965 | 8.96 | 12235 | 2125 | 1900 | 3355 |
| | 16" | 1306 | 10.24 | 14020 | 2330 | 1900 | 3355 |
| | 18" | 1703 | 11.52 | 15780 | 2535 | 1900 | 3355 |
| | 20" | 2155 | 12.80 | 17520 | 2740 | 1900 | 3355 |

FORMWORK DESIGN VALUES

| Joist Series | Joist Depth | EI ^(2,8) [x 10 ⁶ lb-in ²] | k ⁽³⁾ [x 10 ⁶ lb] | M ^(4,9) [ft-lb] | V ^(5,9) [lb] | ER ^(6,9) [lb] | IR ^(7,9) [lb] |
|--------------|-------------|---|--|-------------------------------|----------------------------|-----------------------------|-----------------------------|
| CFI-77 | 9 1/2" | 235 | 6.08 | 5799 | 1609 | 1609 | 3032 |
| | 11 7/8" | 398 | 7.60 | 7509 | 2166 | 1980 | 3032 |
| | 14" | 583 | 8.96 | 8955 | 2391 | 1980 | 3032 |
| | 16" | 793 | 10.24 | 10260 | 2621 | 1980 | 3032 |
| | 18" | 1037 | 11.52 | 11548 | 2852 | 1980 | 3032 |
| | 20" | 1317 | 12.80 | 12819 | 3083 | 1980 | 3032 |
| CFI-90 | 9 1/2" | 353 | 6.08 | 8904 | 1609 | 1609 | 3218 |
| | 11 7/8" | 595 | 7.60 | 11537 | 2166 | 2138 | 3774 |
| | 14" | 869 | 8.96 | 13764 | 2391 | 2138 | 3774 |
| | 16" | 1175 | 10.24 | 15773 | 2621 | 2138 | 3774 |
| | 18" | 1533 | 11.52 | 17753 | 2852 | 2138 | 3774 |
| | 20" | 1940 | 12.80 | 19710 | 3083 | 2138 | 3774 |

- See PR-L262 for reference design values.
- Bending stiffness (EI).
- Coefficient of shear deflection (k). Calculate uniform load deflection in a simple-span application as follows:
 Uniform Load: $\delta = \frac{5wl^4}{384EI} + \frac{wl^2}{k}$ where:
 δ = calculated deflection [in]
 w = uniform load [lb/in]
 l = design span [in]

- P = concentrated load [lb]
 EI = bending stiffness of the I-joist [lb-in²]
 k = coefficient of shear deflection [lb]

- Moment capacity (M).
- Shear capacity (V).
- End reaction capacity (ER) on bearing length of 3 1/2 inches.
- Intermediate reaction capacity (IR) on bearing length of 3 1/2 inches
- Adjusted by $C_M = 0.90$ for unprotected use
- Adjusted by $C_M = 0.90$ for unprotected use and by $C_D = 1.25$ for construction load duration