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.

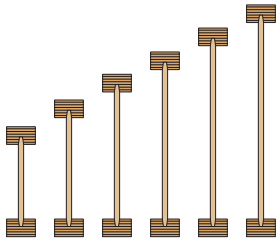
Exposure to the environment is also a very important factor to consider, and concrete forming products are subject to high moisture levels which must be accounted for in the design.

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

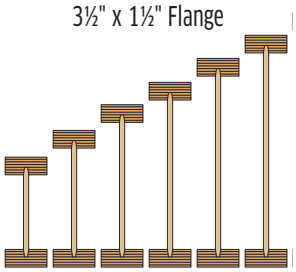
CFI 77

7/16" OSB Web
2 5/16" x 1½" Flange



CFI 90

7/16" OSB Web
3½" x 1½" Flange



Design Values

REFERENCE DESIGN VALUES[1]

Joist Series	Joist Depth	EI[2] [x 10⁶ lb-in²]	k[3] [x 10⁶ lb]	M[4] [ft-lb]	V[5] [lb]	ER[6] [lb]	IR[7] [lb]
CFI-77	9½"	261	6.08	5155	1430	1430	2695
	11⅞"	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	9½"	392	6.08	7915	1430	1430	2860
	11⅞"	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] [x 10⁶ lb-in²]	k[3] [x 10⁶ lb]	M[4,9] [ft-lb]	V[5,9] [lb]	ER[6,9] [lb]	IR[7,9] [lb]
CFI-77	9½"	235	6.08	5799	1609	1609	3032
	11⅞"	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	9½"	353	6.08	8904	1609	1609	3218
	11⅞"	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

1. See PR-L262 for reference design values.
2. Bending stiffness (EI).
3. 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]

4. Moment capacity (M).
5. Shear capacity (V).
6. End reaction capacity (ER) on bearing length of 3½ inches.
7. Intermediate reaction capacity (IR) on bearing length of 3½ inches
8. Adjusted by C_M = 0.90 for unprotected use
9. Adjusted by C_M = 0.90 for unprotected use and by C_D = 1.25 for construction load duration