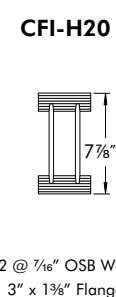
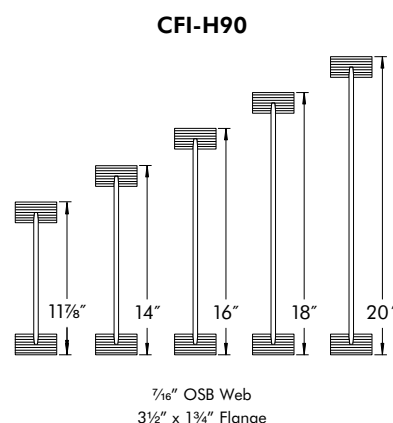
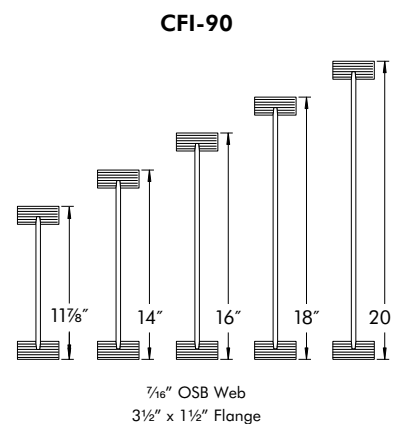
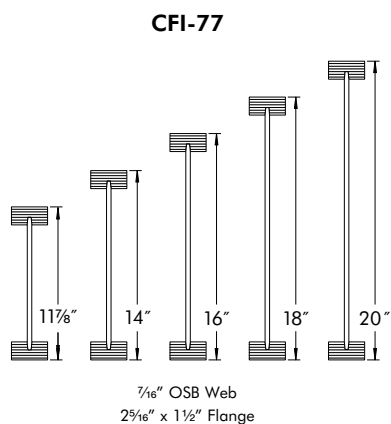


JOIST DIMENSIONS FOR CFI JOISTS



DESIGN PROPERTIES FOR CFI JOISTS

NORMAL CONDITIONS⁽¹⁾

Joist Series	Joist Depth	El (10 ⁶ lb-in ²)	k (10 ⁶ lb) ⁽³⁾	M (ft-lb)	V (lb)
CFI-77	11 7/8"	442	6.92	6675	1925
	14"	648	8.17	7960	2125
	16"	881	9.35	9120	2330
	18"	1152	10.55	10265	2535
	20"	1463	11.76	11395	2740
CFI-90	11 7/8"	661	6.92	10255	1925
	14"	965	8.17	12235	2125
	16"	1306	9.35	14020	2330
	18"	1703	10.55	15780	2535
	20"	2155	11.76	17520	2740
CFI-H90	11 7/8"	707	6.81	9789	2080
	14"	1031	7.91	12081	2260
	16"	1394	8.97	14251	2425
	18"	1944	10.05	16269	2590
	20"	2454	11.13	18419	2755
CFI-H20	7 7/8"	187	8.06	3870	2923

FORMWORK CONDITIONS⁽²⁾

Joist Series	Joist Depth	El (10 ⁶ lb-in ²)	k (10 ⁶ lb) ⁽³⁾	M (ft-lb)	V (lb)
CFI-77	11 7/8"	398	6.23	7509	2166
	14"	583	7.35	8955	2391
	16"	793	8.42	10260	2621
	18"	1037	9.50	11548	2852
	20"	1317	10.58	12819	3083
CFI-90	11 7/8"	595	6.23	11537	2166
	14"	869	7.35	13764	2391
	16"	1175	8.42	15773	2621
	18"	1533	9.50	17753	2852
	20"	1940	10.58	19710	3083
CFI-H90	11 7/8"	636	6.13	11013	2340
	14"	928	7.12	13591	2543
	16"	1255	8.07	16032	2728
	18"	1750	9.05	18303	2914
	20"	2209	10.02	20721	3099
CFI-H20	7 7/8"	168	7.25	4354	3288

1. The tabulated design properties are for normal duration of load. All properties, except El and k, may be adjusted for other load durations as permitted by the code.

2. Table value have been adjusted for unprotected use (C_M = 0.90) and construction load duration (C_D = 1.25).

3. Coefficient of shear deflection (k). Use Equations 1 or 2 to calculate uniform load or center point load deflections in a simple-span application.

Uniform Load:

$$(1) \delta = \frac{5w l^4}{384EI} + \frac{w l^2}{k}$$

Center-Point Load:

$$(2) \delta = \frac{P l^3}{48EI} + \frac{2P l}{k}$$

where:

δ = calculated deflection (in)

w = uniform load (lbs/in)

l = design span (in)

P = concentrated load (lbs)

El = bending stiffness of the joist (lbs-in²)

k = coefficient of shear deflection (lbs)