

f_c= 5000 psi
f_y= 60000 psi

Rho= 0.003536

EQ 10-3

Section size		f _r psi	S in ³	M _{cr} lb-in	d-in	A _{st} in ²	a in	phi-Mn	Phi-Mn/M _{cr}
12	8	530.3301	128	67882.25	6.5	0.275772	0.324437	94380.14	1.39035079
12	12	530.3301	288	152735.1	10.5	0.445477	0.524091	246281.9	1.61247784
12	24	530.3301	1152	610940.3	22.5	0.954594	1.123052	1130886	1.85105875
12	36	530.3301	2592	1374616	34.5	1.463711	1.722013	2658839	1.93424213

f_c= 6000 psi
f_y= 60000 psi

Rho= 0.003873

EQ 10-3

Section size		f _r psi	S in ³	M _{cr} lb-in	d-in	A _{st} in ²	a in	phi-Mn	Phi-Mn/M _{cr}
12	8	580.9475	128	74361.28	6.5	0.302093	0.296169	103618.8	1.39345143
12	12	580.9475	288	167312.9	10.5	0.487996	0.478427	270390	1.61607385
12	24	580.9475	1152	669251.5	22.5	1.045706	1.025201	1241587	1.85518681
12	36	580.9475	2592	1505816	34.5	1.603415	1.571976	2919108	1.9385557

f_c= 7000 psi
f_y= 60000 psi

Rho= 0.004183

EQ 10-3

Section size		f _r psi	S in ³	M _{cr} lb-in	d-in	A _{st} in ²	a in	phi-Mn	Phi-Mn/M _{cr}
12	8	627.495	128	80319.36	6.5	0.326297	0.2742	112114.7	1.39586124
12	12	627.495	288	180718.6	10.5	0.527096	0.442938	292559.6	1.61886866
12	24	627.495	1152	722874.3	22.5	1.129491	0.949152	1343386	1.85839514
12	36	627.495	2592	1626467	34.5	1.731886	1.455367	3158450	1.94190821

f_c= 8000 psi
f_y= 60000 psi

Rho= 0.004472

EQ 10-3

Beam Size		f _r psi	S in ³	M _{cr} lb-in	d-in	A _{st} in ²	a in	phi-Mn	Phi-Mn/M _{cr}
12	8	670.8204	128	85865.01	6.5	0.348827	0.25649	120022.4	1.39780374
12	12	670.8204	288	193196.3	10.5	0.563489	0.41433	313194.6	1.62112149
12	24	670.8204	1152	772785.1	22.5	1.207477	0.887851	1438139	1.86098131
12	36	670.8204	2592	1738766	34.5	1.851464	1.361371	3381224	1.94461059