

f<sub>c</sub>= 5000 psi  
f<sub>y</sub>= 60000 psi

Rho= 0.0018

Section size		f <sub>r</sub> psi	S in <sup>3</sup>	M <sub>cr</sub> lb-in	d-in	A <sub>st</sub> in <sup>2</sup>	a in	phi-Mn	Mn/M <sub>cr</sub>
12	8	530.3301	128	67882.25	6.5	0.1404	0.165176	48654.25	0.716745
12	12	530.3301	288	152735.1	10.5	0.2268	0.266824	126961.7	0.831254
12	24	530.3301	1152	610940.3	22.5	0.486	0.571765	582987.3	0.954246
12	36	530.3301	2592	1374616	34.5	0.7452	0.876706	1370668	0.997128

f<sub>c</sub>= 6000 psi  
f<sub>y</sub>= 60000 psi

Rho= 0.0018

Section size		f <sub>r</sub> psi	S in <sup>3</sup>	M <sub>cr</sub> lb-in	d-in	A <sub>st</sub> in <sup>2</sup>	a in	phi-Mn	Mn/M <sub>cr</sub>
12	8	580.9475	128	74361.28	6.5	0.1404	0.137647	48758.61	0.655699
12	12	580.9475	288	167312.9	10.5	0.2268	0.222353	127234	0.760455
12	24	580.9475	1152	669251.5	22.5	0.486	0.476471	584237.8	0.872972
12	36	580.9475	2592	1505816	34.5	0.7452	0.730588	1373608	0.912202

f<sub>c</sub>= 7000 psi  
f<sub>y</sub>= 60000 psi

Rho= 0.0018

Section size		f <sub>r</sub> psi	S in <sup>3</sup>	M <sub>cr</sub> lb-in	d-in	A <sub>st</sub> in <sup>2</sup>	a in	phi-Mn	Mn/M <sub>cr</sub>
12	8	627.495	128	80319.36	6.5	0.1404	0.117983	48833.15	0.607987
12	12	627.495	288	180718.6	10.5	0.2268	0.190588	127428.5	0.705121
12	24	627.495	1152	722874.3	22.5	0.486	0.408403	585130.9	0.80945
12	36	627.495	2592	1626467	34.5	0.7452	0.626218	1375708	0.845826

f<sub>c</sub>= 8000 psi  
f<sub>y</sub>= 60000 psi

Rho= 0.0018

Beam Size		f <sub>r</sub> psi	S in <sup>3</sup>	M <sub>cr</sub> lb-in	d-in	A <sub>st</sub> in <sup>2</sup>	a in	Mn	Mn/M <sub>cr</sub>
12	8	670.8204	128	85865.01	6.5	0.1404	0.103235	48889.06	0.569371
12	12	670.8204	288	193196.3	10.5	0.2268	0.166765	127574.4	0.660336
12	24	670.8204	1152	772785.1	22.5	0.486	0.357353	585800.8	0.758038
12	36	670.8204	2592	1738766	34.5	0.7452	0.547941	1377283	0.792103