

CFS Version 3.52
Section: SSCCB20-50.sct
20ga 3in chord

Full Section Properties

Area	0.32053 in ²	Wt.	0.0010898 k/ft	Width	9.2639
Ix	0.3518 in ⁴	rx	1.0477 in	Ixy	0.0000 in ⁴
Sx(t)	0.27744 in ³	y(t)	1.2681 in	α	0.001 deg
Sx(b)	0.20596 in ³	y(b)	1.7082 in		
		Height	2.9763 in		
Iy	0.2286 in ⁴	ry	0.8445 in	Xo	0.0000 in
Sy(1)	0.20781 in ³	x(l)	1.1000 in	Yo	2.6204 in
Sy(r)	0.20781 in ³	x(r)	1.1000 in	jx	0.0000 in
		Width	2.2000 in	jy	-2.7853 in
I1	0.3518 in ⁴	r1	1.0477 in		
I2	0.2286 in ⁴	r2	0.8445 in		
Ic	0.5804 in ⁴	rc	1.3457 in	Cw	0.20781 in ⁶
Io	2.7813 in ⁴	ro	2.9457 in	J	0.00012791 in ⁴

Fully Braced Strength - 1996 AISI
Specification-Supplement 1 (ASD)

Compression		Positive Moment		Positive Moment	
Pao	7.8036 k	Maxo	5.8937 k-in	Mayo	6.1111 k-in
Ae	0.28093 in ²	Ixe	0.32124 in ⁴	Iye	0.22636 in ⁴
		Sxe(t)	0.23895 in ³	Sye(l)	0.20748 in ³
Tension		Sxe(b)	0.19685 in ³	Sye(r)	0.20411 in ³
Ta	9.5967 k				
		Negative Moment		Negative Moment	
		Maxo	6.1665 k-in	Mayo	6.1111 k-in
Shear		Ixe	0.35182 in ⁴	Iye	0.22636 in ⁴
Vay	2.8152 k	Sxe(t)	0.27744 in ³	Sye(l)	0.20411 in ³
Vax	1.2876 k	Sxe(b)	0.20596 in ³	Sye(r)	0.20748 in ³

CFS Version 3.52
Section: SCCB18-50.sct
18ga 3in chord

Full Section Properties

Area	0.41332 in ²	Wt.	0.0014053 k/ft	Width	9.1645 in
I _x	0.4452 in ⁴	r _x	1.0378 in	I _{xy}	0.0000 in ⁴
S _{x(t)}	0.35348 in ³	y(t)	1.2594 in	α	0.001 deg
S _{x(b)}	0.26197 in ³	y(b)	1.6994 in		
		Height	2.9588 in		
I _y	0.2929 in ⁴	r _y	0.8418 in	X _o	0.0000 in
S _{y(l)}	0.26625 in ³	x(l)	1.1000 in	Y _o	2.5903 in
S _{y(r)}	0.26625 in ³	x(r)	1.1000 in	j _x	0.0000 in
		Width	2.2000 in	j _y	-2.7578 in
I ₁	0.4452 in ⁴	r ₁	1.0378 in		
I ₂	0.2929 in ⁴	r ₂	0.8418 in		
I _c	0.7381 in ⁴	r _c	1.3363 in	C _w	0.25575 in ⁶
I _o	3.5113 in ⁴	r _o	2.9147 in	J	0.00028023 in ⁴

Fully Braced Strength - 1996 AISI
Specification-Supplement 1 (ASD)

Compression		Positive Moment		Positive Moment	
P _{ao}	10.982 k	Max _o	7.7283 k-in	May _o	7.9715 k-in
A _e	0.39535 in ²	I _{xe}	0.43198 in ⁴	I _{ye}	0.29287 in ⁴
		S _{xe(t)}	0.33611 in ³	S _{ye(l)}	0.26625 in ³
Tension		S _{xe(b)}	0.25813 in ³	S _{ye(r)}	0.26625 in ³
T _a	12.375 k				
		Negative Moment		Negative Moment	
		Max _o	7.8434 k-in	May _o	7.9715 k-in
Shear		I _{xe}	0.44518 in ⁴	I _{ye}	0.29287 in ⁴
V _{ay}	3.645 k	S _{xe(t)}	0.35348 in ³	S _{ye(l)}	0.26625 in ³
V _{ax}	1.741 k	S _{xe(b)}	0.26197 in ³	S _{ye(r)}	0.26625 in ³

CFS Version 3.52
Section: SCCB16-50.sct
16ga 3in chord

Full Section Properties

Area	0.51192 in ²	Wt.	0.0017405 k/ft	Width	9.0446 in
I _x	0.5388 in ⁴	r _x	1.0259 in	I _{xy}	0.0000 in ⁴
S _{x(t)}	0.43180 in ³	y(t)	1.2479 in	α	0.001 deg
S _{x(b)}	0.31849 in ³	y(b)	1.6918 in		
		Height	2.9396 in		
I _y	0.3598 in ⁴	r _y	0.8384 in	X _o	0.0000 in
S _{y(l)}	0.32711 in ³	x(l)	1.1000 in	Y _o	2.5543 in
S _{y(r)}	0.32711 in ³	x(r)	1.1000 in	j _x	0.0000 in
		Width	2.2000 in	j _y	-2.7249 in
I ₁	0.5388 in ⁴	r ₁	1.0259 in		
I ₂	0.3598 in ⁴	r ₂	0.8384 in		
I _c	0.8986 in ⁴	r _c	1.3249 in	C _w	0.30108 in ⁶
I _o	4.2388 in ⁴	r _o	2.8775 in	J	0.00054666 in ⁴

Fully Braced Strength - 1996 AISI
Specification-Supplement 1 (ASD)

Compression		Positive Moment		Positive Moment	
P _{ao}	14.092 k	Max _o	9.5357 k-in	May _o	9.7936 k-in
A _e	0.50732 in ²	I _{xe}	0.53882 in ⁴	I _{ye}	0.35982 in ⁴
		S _{xe(t)}	0.43180 in ³	S _{ye(l)}	0.32711 in ³
Tension		S _{xe(b)}	0.31849 in ³	S _{ye(r)}	0.32711 in ³
T _a	15.327 k				
		Negative Moment		Negative Moment	
		Max _o	9.5357 k-in	May _o	9.7936 k-in
Shear		I _{xe}	0.53882 in ⁴	I _{ye}	0.35982 in ⁴
V _{ay}	4.512 k	S _{xe(t)}	0.43180 in ³	S _{ye(l)}	0.32711 in ³
V _{ax}	2.158 k	S _{xe(b)}	0.31849 in ³	S _{ye(r)}	0.32711 in ³

CFS Version 3.52
Section: SCCB16-50 5.sct
16ga 5in chord

Full Section Properties

Area	0.79492 in ²	Wt.	0.0027027 k/ft	Width	14.045 in
I _x	2.603 in ⁴	r _x	1.8095 in	I _{xy}	0.0000 in ⁴
S _{x(t)}	1.0600 in ³	y(t)	2.4554 in	α	0.000 deg
S _{x(b)}	0.8721 in ³	y(b)	2.9842 in		
		Height	5.4397 in		
I _y	0.591 in ⁴	r _y	0.8622 in	X _o	0.0000 in
S _{y(l)}	0.5373 in ³	x(l)	1.1000 in	Y _o	4.9466 in
S _{y(r)}	0.5373 in ³	x(r)	1.1000 in	j _x	0.0000 in
		Width	2.2000 in	j _y	-5.0721 in
I ₁	2.603 in ⁴	r ₁	1.8095 in		
I ₂	0.591 in ⁴	r ₂	0.8622 in		
I _c	3.194 in ⁴	r _c	2.0044 in	C _w	1.5399 in ⁶
I _o	22.644 in ⁴	r _o	5.3372 in	J	0.00084886 in ⁴

**Fully Braced Strength - 1996 AISI
Specification-Supplement 1 (ASD)**

Compression		Positive Moment		Positive Moment	
P _{ao}	19.312 k	Max _o	26.112 k-in	May _o	15.110 k-in
A _e	0.69523 in ²	I _{xe}	2.6027 in ⁴	I _{ye}	0.5713 in ⁴
		S _{xe(t)}	1.0600 in ³	S _{ye(l)}	0.5350 in ³
Tension		S _{xe(b)}	0.8721 in ³	S _{ye(r)}	0.5047 in ³
T _a	23.800 k				
		Negative Moment		Negative Moment	
		Max _o	26.112 k-in	May _o	15.110 k-in
Shear		I _{xe}	2.6027 in ⁴	I _{ye}	0.5713 in ⁴
V _{ay}	10.172 k	S _{xe(t)}	1.0600 in ³	S _{ye(l)}	0.5047 in ³
V _{ax}	2.158 k	S _{xe(b)}	0.8721 in ³	S _{ye(r)}	0.5350 in ³