

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>250S162-33 (33 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	2.5000 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	0.7500 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.2737 in
Moment of Inertia for Deflection (Ixx)			0.2352 in <sup>4</sup>
Section Modulus (Sxx)			0.1798 in <sup>3</sup>
Allowable Bending Moment (Ma)			296.12 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			284.67 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.2500 in
Moment of Inertia (Ixxg)			0.2352 in <sup>4</sup>
Section modules (Sxxg)			0.1882 in <sup>3</sup>
Cross Sectional Area (Ag)			0.2232 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.0266 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.2340 in <sup>4</sup>
Section Modules (Sxx-net)			0.1872 in <sup>3</sup>
Cross Sectional Area (Anet)			0.1972 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.6276 in
Gross Moment of Inertia (Iyy)			0.0870 in <sup>4</sup>
Radius of Gyration (Ry)			0.6242 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			0.7595 lb/ft
Allowable Shear Force In Web (Unpunched)			975.34 lb
Allowable Shear Force In Web (Punched)			398.80 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.4695 in
St. Venant torsion Constant (J x 1000)			0.0891 in <sup>4</sup>
Warping Constant (Cw)			0.1461 in <sup>6</sup>
Radii of Gyration (Ro)			1.8982 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.4006

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>250S162-43 (33 ksi) Structural Stud (G60)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	2.5000 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, $F_y$ =	33.0000 ksi
Stiffening Lip =	0.5000 in	$F_y$ With Cold-Work, $F_{ya}$ =	33.0000 ksi
Punchout Width =	0.7500 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber ( $Y_{cg}$ )	1.2500 in		
Moment of Inertia for Deflection ( $I_{xx}$ )	0.3020 in <sup>4</sup>		
Section Modulus ( $S_{xx}$ )	0.2416 in <sup>3</sup>		
Allowable Bending Moment ( $M_a$ )	397.84 ft-lb		
Allowable Distortional Buckling Moment ( $M_{da}$ ) at $K\phi = 0$	393.46 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber ( $Y_{cg}$ )	1.2500 in		
Moment of Inertia ( $I_{xxg}$ )	0.3020 in <sup>4</sup>		
Section modules ( $S_{xxg}$ )	0.2416 in <sup>3</sup>		
Cross Sectional Area ( $A_g$ )	0.2890 in <sup>2</sup>		
Radius of Gyration ( $R_{xg}$ )	1.0222 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia ( $I_{xx-net}$ )	0.3004 in <sup>4</sup>		
Section Modules ( $S_{xx-net}$ )	0.2403 in <sup>3</sup>		
Cross Sectional Area ( $A_{net}$ )	0.2552 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis ( $X_{cg}$ ) From Web Face	0.6276 in		
Gross Moment of Inertia ( $I_{yy}$ )	0.1110 in <sup>4</sup>		
Radius of Gyration ( $R_y$ )	0.6197 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	0.9835 lb/ft		
Allowable Shear Force In Web (Unpunched)	1265.46 lb		
Allowable Shear Force In Web (Punched)	394.23 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis ( $X_o$ )	-1.4573 in		
St. Venant torsion Constant ( $J \times 1000$ )	0.1960 in <sup>4</sup>		
Warping Constant ( $C_w$ )	0.1843 in <sup>6</sup>		
Radii of Gyration ( $R_o$ )	1.8848 in <sup>6</sup>		
Torsional Flexural Constant ( $\beta$ )	0.4022		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250S162-54 (50 ksi) Structural Stud (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.5000 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	0.7500 in	Punchout Length =	4.0000 in

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.2666 in
Moment of Inertia for Deflection (Ixx)	0.3697 in <sup>4</sup>
Section Modulus (Sxx)	0.2881 in <sup>3</sup>
Allowable Bending Moment (Ma)	718.74 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	695.60 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.2500 in
Moment of Inertia (Ixxg)	0.3697 in <sup>4</sup>
Section modules (Sxxg)	0.2958 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3582 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0159 in

**Net Section Properties of the Punched Section, Strong Axis**

Moment of Inertia (Ixx-net)	0.3677 in <sup>4</sup>
Section Modules (Sxx-net)	0.2942 in <sup>3</sup>
Cross Sectional Area (Anet)	0.3158 in <sup>2</sup>

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.6266 in
Gross Moment of Inertia (Iyy)	0.1348 in <sup>4</sup>
Radius of Gyration (Ryy)	0.6134 in

**Other Section Properties**

Member Weight per Foot of Length	1.2190 lb/ft
Allowable Shear Force In Web (Unpunched)	2352.79 lb
Allowable Shear Force In Web (Punched)	564.64 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-1.4429 in
St. Venant torsion Constant (J x 1000)	0.3825 in <sup>4</sup>
Warping Constant (Cw)	0.2229 in <sup>6</sup>
Radii of Gyration (Ro)	1.8683 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.4035

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Location (1) and (6) are tip of compression and tension lip respectively

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## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>362S162-33 (33 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	3.6250 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.9189 in
Moment of Inertia for Deflection (Ixx)			0.5512 in <sup>4</sup>
Section Modulus (Sxx)			0.2677 in <sup>3</sup>
Allowable Bending Moment (Ma)			440.87 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			434.51 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8125 in
Moment of Inertia (Ixxg)			0.5512 in <sup>4</sup>
Section modules (Sxxg)			0.3041 in <sup>3</sup>
Cross Sectional Area (Ag)			0.2621 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.4501 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.5414 in <sup>4</sup>
Section Modules (Sxx-net)			0.2987 in <sup>3</sup>
Cross Sectional Area (Anet)			0.2102 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5370 in
Gross Moment of Inertia (Iyy)			0.0993 in <sup>4</sup>
Radius of Gyration (Ry)			0.6155 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			0.8919 lb/ft
Allowable Shear Force In Web (Unpunched)			1023.58 lb
Allowable Shear Force In Web (Punched)			521.24 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.3084 in
St. Venant torsion Constant (J x 1000)			0.1046 in <sup>4</sup>
Warping Constant (Cw)			0.2969 in <sup>6</sup>
Radii of Gyration (Ro)			2.0478 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.5918

Location (1) and (6) are tip of compression and tension lip respectively

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## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>362S162-43 (33 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	3.6250 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8509 in
Moment of Inertia for Deflection (Ixx)			0.7098 in <sup>4</sup>
Section Modulus (Sxx)			0.3716 in <sup>3</sup>
Allowable Bending Moment (Ma)			611.99 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			609.61 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8125 in
Moment of Inertia (Ixxg)			0.7098 in <sup>4</sup>
Section modules (Sxxg)			0.3916 in <sup>3</sup>
Cross Sectional Area (Ag)			0.3398 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.4453 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.6971 in <sup>4</sup>
Section Modules (Sxx-net)			0.3846 in <sup>3</sup>
Cross Sectional Area (Anet)			0.2721 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5373 in
Gross Moment of Inertia (Iyy)			0.1268 in <sup>4</sup>
Radius of Gyration (Ry)			0.6109 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			1.1562 lb/ft
Allowable Shear Force In Web (Unpunched)			1739.09 lb
Allowable Shear Force In Web (Punched)			675.67 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.2966 in
St. Venant torsion Constant (J x 1000)			0.2304 in <sup>4</sup>
Warping Constant (Cw)			0.3759 in <sup>6</sup>
Radii of Gyration (Ro)			2.0355 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.5942

Location (1) and (6) are tip of compression and tension lip respectively

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Location (3) and (4) are flange/web corner of compression and tension side respectively

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## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>362S162-54 (50 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	3.6250 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8772 in
Moment of Inertia for Deflection (Ixx)			0.8727 in <sup>4</sup>
Section Modulus (Sxx)			0.4435 in <sup>3</sup>
Allowable Bending Moment (Ma)			1106.66 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			1077.75 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8125 in
Moment of Inertia (Ixxg)			0.8727 in <sup>4</sup>
Section modules (Sxxg)			0.4815 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4219 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.4382 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.8568 in <sup>4</sup>
Section Modules (Sxx-net)			0.4727 in <sup>3</sup>
Cross Sectional Area (Anet)			0.3370 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5363 in
Gross Moment of Inertia (Iyy)			0.1541 in <sup>4</sup>
Radius of Gyration (Ry)			0.6044 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			1.4357 lb/ft
Allowable Shear Force In Web (Unpunched)			3371.56 lb
Allowable Shear Force In Web (Punched)			1015.97 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.2825 in
St. Venant torsion Constant (J x 1000)			0.4505 in <sup>4</sup>
Warping Constant (Cw)			0.4569 in <sup>6</sup>
Radii of Gyration (Ro)			2.0196 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.5967

Location (1) and (6) are tip of compression and tension lip respectively

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## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>400S162-33 (33 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	4.0000 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			2.1436 in
Moment of Inertia for Deflection (Ixx)			0.6921 in <sup>4</sup>
Section Modulus (Sxx)			0.2989 in <sup>3</sup>
Allowable Bending Moment (Ma)			492.21 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			485.78 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			2.0000 in
Moment of Inertia (Ixxg)			0.6921 in <sup>4</sup>
Section modules (Sxxg)			0.3461 in <sup>3</sup>
Cross Sectional Area (Ag)			0.2751 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.5862 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.6824 in <sup>4</sup>
Section Modules (Sxx-net)			0.3412 in <sup>3</sup>
Cross Sectional Area (Anet)			0.2232 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5124 in
Gross Moment of Inertia (Iyy)			0.1026 in <sup>4</sup>
Radius of Gyration (Ry)			0.6108 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			0.9361 lb/ft
Allowable Shear Force In Web (Unpunched)			975.86 lb
Allowable Shear Force In Web (Punched)			594.87 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.2633 in
St. Venant torsion Constant (J x 1000)			0.1098 in <sup>4</sup>
Warping Constant (Cw)			0.3628 in <sup>6</sup>
Radii of Gyration (Ro)			2.1178 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.6442

Location (1) and (6) are tip of compression and tension lip respectively

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<b>Product Name :</b>		<b>400S162-43 (33 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	4.0000 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	2.0660 in		
Moment of Inertia for Deflection (Ixx)	0.8919 in <sup>4</sup>		
Section Modulus (Sxx)	0.4166 in <sup>3</sup>		
Allowable Bending Moment (Ma)	686.00 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	683.84 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	2.0000 in		
Moment of Inertia (Ixxg)	0.8919 in <sup>4</sup>		
Section modules (Sxxg)	0.4460 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.3567 in <sup>2</sup>		
Radius of Gyration (Rxxg)	1.5813 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	0.8792 in <sup>4</sup>		
Section Modules (Sxx-net)	0.4396 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.2890 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.5128 in		
Gross Moment of Inertia (Iyy)	0.1311 in <sup>4</sup>		
Radius of Gyration (Ry)	0.6062 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.2137 lb/ft		
Allowable Shear Force In Web (Unpunched)	1739.09 lb		
Allowable Shear Force In Web (Punched)	809.56 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-1.2517 in		
St. Venant torsion Constant (J x 1000)	0.2418 in <sup>4</sup>		
Warping Constant (Cw)	0.4598 in <sup>6</sup>		
Radii of Gyration (Ro)	2.1059 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.6467		

Location (1) and (6) are tip of compression and tension lip respectively

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<b>Product Name :</b>		<b>400S162-54 (50 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	4.0000 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			2.0948 in
Moment of Inertia for Deflection (Ixx)			1.0977 in <sup>4</sup>
Section Modulus (Sxx)			0.4975 in <sup>3</sup>
Allowable Bending Moment (Ma)			1241.34 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			1209.78 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			2.0000 in
Moment of Inertia (Ixxg)			1.0977 in <sup>4</sup>
Section modules (Sxxg)			0.5489 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4431 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.5739 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			1.0818 in <sup>4</sup>
Section Modules (Sxx-net)			0.5409 in <sup>3</sup>
Cross Sectional Area (Anet)			0.3582 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5120 in
Gross Moment of Inertia (Iyy)			0.1594 in <sup>4</sup>
Radius of Gyration (Ry)			0.5997 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			1.5079 lb/ft
Allowable Shear Force In Web (Unpunched)			3371.56 lb
Allowable Shear Force In Web (Punched)			1222.80 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.2378 in
St. Venant torsion Constant (J x 1000)			0.4732 in <sup>4</sup>
Warping Constant (Cw)			0.5595 in <sup>6</sup>
Radii of Gyration (Ro)			2.0902 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.6493

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>600S162-33 (33 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.0000 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.0387 in
Moment of Inertia for Deflection (Ixx)			1.7928 in <sup>4</sup>
Section Modulus (Sxx)			0.5773 in <sup>3</sup>
Allowable Bending Moment (Ma)			950.63 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			760.95 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.0000 in
Moment of Inertia (Ixxg)			1.7928 in <sup>4</sup>
Section modules (Sxxg)			0.5976 in <sup>3</sup>
Cross Sectional Area (Ag)			0.3443 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.2819 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			1.7831 in <sup>4</sup>
Section Modules (Sxx-net)			0.5944 in <sup>3</sup>
Cross Sectional Area (Anet)			0.2924 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.4129 in
Gross Moment of Inertia (Iyy)			0.1162 in <sup>4</sup>
Radius of Gyration (Ry)			0.5809 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			1.1716 lb/ft
Allowable Shear Force In Web (Unpunched)			638.07 lb
Allowable Shear Force In Web (Punched)			638.07 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.0723 in
St. Venant torsion Constant (J x 1000)			0.1374 in <sup>4</sup>
Warping Constant (Cw)			0.8615 in <sup>6</sup>
Radii of Gyration (Ro)			2.5874 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.8282

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>600S162-43 (33 ksi) Structural Stud (G60)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.0000 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0000 in		
Moment of Inertia for Deflection (Ixx)	2.3158 in <sup>4</sup>		
Section Modulus (Sxx)	0.7719 in <sup>3</sup>		
Allowable Bending Moment (Ma)	1271.14 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	1087.91 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0000 in		
Moment of Inertia (Ixxg)	2.3158 in <sup>4</sup>		
Section modules (Sxxg)	0.7719 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.4469 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.2764 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	2.3031 in <sup>4</sup>		
Section Modules (Sxx-net)	0.7677 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.3792 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.4139 in		
Gross Moment of Inertia (Iyy)	0.1484 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5762 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.5206 lb/ft		
Allowable Shear Force In Web (Unpunched)	1415.67 lb		
Allowable Shear Force In Web (Punched)	1240.29 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-1.0617 in		
St. Venant torsion Constant (J x 1000)	0.3030 in <sup>4</sup>		
Warping Constant (Cw)	1.0952 in <sup>6</sup>		
Radii of Gyration (Ro)	2.5771 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.8303		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>600S162-54 (50 ksi) Structural Stud (G60)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.0000 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0335 in		
Moment of Inertia for Deflection (Ixx)	2.8604 in <sup>4</sup>		
Section Modulus (Sxx)	0.9272 in <sup>3</sup>		
Allowable Bending Moment (Ma)	2313.36 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	1930.24 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0000 in		
Moment of Inertia (Ixxg)	2.8604 in <sup>4</sup>		
Section modules (Sxxg)	0.9535 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.5563 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.2675 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	2.8445 in <sup>4</sup>		
Section Modules (Sxx-net)	0.9482 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.4714 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.4136 in		
Gross Moment of Inertia (Iyy)	0.1805 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5695 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.8931 lb/ft		
Allowable Shear Force In Web (Unpunched)	2822.88 lb		
Allowable Shear Force In Web (Punched)	1947.40 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-1.0487 in		
St. Venant torsion Constant (J x 1000)	0.5941 in <sup>4</sup>		
Warping Constant (Cw)	1.3372 in <sup>6</sup>		
Radii of Gyration (Ro)	2.5623 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.8325		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>800S162-33 (33 ksi) Structural Stud (G60)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.0000 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	4.4637 in		
Moment of Inertia for Deflection (Ixx)	3.3844 in <sup>4</sup>		
Section Modulus (Sxx)	0.7098 in <sup>3</sup>		
Allowable Bending Moment (Ma)	1168.89 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	1017.71 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	4.0000 in		
Moment of Inertia (Ixxg)	3.5821 in <sup>4</sup>		
Section modules (Sxxg)	0.8955 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.4135 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.9433 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	3.5723 in <sup>4</sup>		
Section Modules (Sxx-net)	0.8931 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.3616 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.3467 in		
Gross Moment of Inertia (Iyy)	0.1252 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5503 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.4070 lb/ft		
Allowable Shear Force In Web (Unpunched)	474.00 lb		
Allowable Shear Force In Web (Punched)	474.00 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-0.9360 in		
St. Venant torsion Constant (J x 1000)	0.1650 in <sup>4</sup>		
Warping Constant (Cw)	1.6304 in <sup>6</sup>		
Radii of Gyration (Ro)	3.1372 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.9110		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>800S162-43 (33 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.0000 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.2699 in
Moment of Inertia for Deflection (Ixx)			4.4998 in <sup>4</sup>
Section Modulus (Sxx)			1.0192 in <sup>3</sup>
Allowable Bending Moment (Ma)			1678.40 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			1475.63 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.0000 in
Moment of Inertia (Ixxg)			4.6334 in <sup>4</sup>
Section modules (Sxxg)			1.1584 in <sup>3</sup>
Cross Sectional Area (Ag)			0.5371 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.9372 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			4.6208 in <sup>4</sup>
Section Modules (Sxx-net)			1.1552 in <sup>3</sup>
Cross Sectional Area (Anet)			0.4694 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.3482 in
Gross Moment of Inertia (Iyy)			0.1599 in <sup>4</sup>
Radius of Gyration (Ry)			0.5456 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			1.8276 lb/ft
Allowable Shear Force In Web (Unpunched)			1051.15 lb
Allowable Shear Force In Web (Punched)			1051.15 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.9262 in
St. Venant torsion Constant (J x 1000)			0.3641 in <sup>4</sup>
Warping Constant (Cw)			2.0758 in <sup>6</sup>
Radii of Gyration (Ro)			3.1277 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9123

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>800S162-54 (50 ksi) Structural Stud (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.0000 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.3087 in
Moment of Inertia for Deflection (Ixx)			5.5998 in <sup>4</sup>
Section Modulus (Sxx)			1.2288 in <sup>3</sup>
Allowable Bending Moment (Ma)			3065.91 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			2625.60 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.0000 in
Moment of Inertia (Ixxg)			5.7357 in <sup>4</sup>
Section modules (Sxxg)			1.4339 in <sup>3</sup>
Cross Sectional Area (Ag)			0.6695 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.9269 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			5.7198 in <sup>4</sup>
Section Modules (Sxx-net)			1.4299 in <sup>3</sup>
Cross Sectional Area (Anet)			0.5846 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.3484 in
Gross Moment of Inertia (Iyy)			0.1944 in <sup>4</sup>
Radius of Gyration (Ry)			0.5389 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			2.2783 lb/ft
Allowable Shear Force In Web (Unpunched)			2091.28 lb
Allowable Shear Force In Web (Punched)			2091.28 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.9142 in
St. Venant torsion Constant (J x 1000)			0.7150 in <sup>4</sup>
Warping Constant (Cw)			2.5386 in <sup>6</sup>
Radii of Gyration (Ro)			3.1133 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9138

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>250S162-33 (33 ksi) Structural Stud (G90)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	2.5000 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	0.7500 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	1.2737 in		
Moment of Inertia for Deflection (Ixx)	0.2352 in <sup>4</sup>		
Section Modulus (Sxx)	0.1798 in <sup>3</sup>		
Allowable Bending Moment (Ma)	296.12 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	284.67 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	1.2500 in		
Moment of Inertia (Ixxg)	0.2352 in <sup>4</sup>		
Section modules (Sxxg)	0.1882 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.2232 in <sup>2</sup>		
Radius of Gyration (Rxxg)	1.0266 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	0.2340 in <sup>4</sup>		
Section Modules (Sxx-net)	0.1872 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.1972 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.6276 in		
Gross Moment of Inertia (Iyy)	0.0870 in <sup>4</sup>		
Radius of Gyration (Ry)	0.6242 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	0.7595 lb/ft		
Allowable Shear Force In Web (Unpunched)	975.34 lb		
Allowable Shear Force In Web (Punched)	398.80 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-1.4695 in		
St. Venant torsion Constant (J x 1000)	0.0891 in <sup>4</sup>		
Warping Constant (Cw)	0.1461 in <sup>6</sup>		
Radii of Gyration (Ro)	1.8982 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.4006		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>250S162-43 (33 ksi) Structural Stud (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	2.5000 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, $F_y$ =	33.0000 ksi
Stiffening Lip =	0.5000 in	$F_y$ With Cold-Work, $F_{ya}$ =	33.0000 ksi
Punchout Width =	0.7500 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber ( $Y_{cg}$ )	1.2500 in		
Moment of Inertia for Deflection ( $I_{xx}$ )	0.3020 in <sup>4</sup>		
Section Modulus ( $S_{xx}$ )	0.2416 in <sup>3</sup>		
Allowable Bending Moment ( $M_a$ )	397.84 ft-lb		
Allowable Distortional Buckling Moment ( $M_{da}$ ) at $K\phi = 0$	393.46 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber ( $Y_{cg}$ )	1.2500 in		
Moment of Inertia ( $I_{xxg}$ )	0.3020 in <sup>4</sup>		
Section modules ( $S_{xxg}$ )	0.2416 in <sup>3</sup>		
Cross Sectional Area ( $A_g$ )	0.2890 in <sup>2</sup>		
Radius of Gyration ( $R_{xg}$ )	1.0222 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia ( $I_{xx-net}$ )	0.3004 in <sup>4</sup>		
Section Modules ( $S_{xx-net}$ )	0.2403 in <sup>3</sup>		
Cross Sectional Area ( $A_{net}$ )	0.2552 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis ( $X_{cg}$ ) From Web Face	0.6276 in		
Gross Moment of Inertia ( $I_{yy}$ )	0.1110 in <sup>4</sup>		
Radius of Gyration ( $R_y$ )	0.6197 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	0.9835 lb/ft		
Allowable Shear Force In Web (Unpunched)	1265.46 lb		
Allowable Shear Force In Web (Punched)	394.23 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis ( $X_o$ )	-1.4573 in		
St. Venant torsion Constant ( $J \times 1000$ )	0.1960 in <sup>4</sup>		
Warping Constant ( $C_w$ )	0.1843 in <sup>6</sup>		
Radii of Gyration ( $R_o$ )	1.8848 in <sup>6</sup>		
Torsional Flexural Constant ( $\beta$ )	0.4022		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250S162-54 (50 ksi) Structural Stud (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.5000 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	0.7500 in	Punchout Length =	4.0000 in

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.2666 in
Moment of Inertia for Deflection (Ixx)	0.3697 in <sup>4</sup>
Section Modulus (Sxx)	0.2881 in <sup>3</sup>
Allowable Bending Moment (Ma)	718.74 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	695.60 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.2500 in
Moment of Inertia (Ixxg)	0.3697 in <sup>4</sup>
Section modules (Sxxg)	0.2958 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3582 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0159 in

**Net Section Properties of the Punched Section, Strong Axis**

Moment of Inertia (Ixx-net)	0.3677 in <sup>4</sup>
Section Modules (Sxx-net)	0.2942 in <sup>3</sup>
Cross Sectional Area (Anet)	0.3158 in <sup>2</sup>

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.6266 in
Gross Moment of Inertia (Iyy)	0.1348 in <sup>4</sup>
Radius of Gyration (Ryy)	0.6134 in

**Other Section Properties**

Member Weight per Foot of Length	1.2190 lb/ft
Allowable Shear Force In Web (Unpunched)	2352.79 lb
Allowable Shear Force In Web (Punched)	564.64 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-1.4429 in
St. Venant torsion Constant (J x 1000)	0.3825 in <sup>4</sup>
Warping Constant (Cw)	0.2229 in <sup>6</sup>
Radii of Gyration (Ro)	1.8683 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.4035

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 362S162-33 (33 ksi) Structural Stud (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.6250 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.9189 in
Moment of Inertia for Deflection (Ixx)	0.5512 in <sup>4</sup>
Section Modulus (Sxx)	0.2677 in <sup>3</sup>
Allowable Bending Moment (Ma)	440.87 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	434.51 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.8125 in
Moment of Inertia (Ixxg)	0.5512 in <sup>4</sup>
Section modules (Sxxg)	0.3041 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2621 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4501 in

**Net Section Properties of the Punched Section, Strong Axis**

Moment of Inertia (Ixx-net)	0.5414 in <sup>4</sup>
Section Modules (Sxx-net)	0.2987 in <sup>3</sup>
Cross Sectional Area (Anet)	0.2102 in <sup>2</sup>

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.5370 in
Gross Moment of Inertia (Iyy)	0.0993 in <sup>4</sup>
Radius of Gyration (Ry)	0.6155 in

**Other Section Properties**

Member Weight per Foot of Length	0.8919 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb
Allowable Shear Force In Web (Punched)	521.24 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-1.3084 in
St. Venant torsion Constant (J x 1000)	0.1046 in <sup>4</sup>
Warping Constant (Cw)	0.2969 in <sup>6</sup>
Radii of Gyration (Ro)	2.0478 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.5918

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>362S162-43 (33 ksi) Structural Stud (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	3.6250 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8509 in
Moment of Inertia for Deflection (Ixx)			0.7098 in <sup>4</sup>
Section Modulus (Sxx)			0.3716 in <sup>3</sup>
Allowable Bending Moment (Ma)			611.99 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			609.61 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8125 in
Moment of Inertia (Ixxg)			0.7098 in <sup>4</sup>
Section modules (Sxxg)			0.3916 in <sup>3</sup>
Cross Sectional Area (Ag)			0.3398 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.4453 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.6971 in <sup>4</sup>
Section Modules (Sxx-net)			0.3846 in <sup>3</sup>
Cross Sectional Area (Anet)			0.2721 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5373 in
Gross Moment of Inertia (Iyy)			0.1268 in <sup>4</sup>
Radius of Gyration (Ry)			0.6109 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			1.1562 lb/ft
Allowable Shear Force In Web (Unpunched)			1739.09 lb
Allowable Shear Force In Web (Punched)			675.67 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.2966 in
St. Venant torsion Constant (J x 1000)			0.2304 in <sup>4</sup>
Warping Constant (Cw)			0.3759 in <sup>6</sup>
Radii of Gyration (Ro)			2.0355 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.5942

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>362S162-54 (50 ksi) Structural Stud (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	3.6250 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8772 in
Moment of Inertia for Deflection (Ixx)			0.8727 in <sup>4</sup>
Section Modulus (Sxx)			0.4435 in <sup>3</sup>
Allowable Bending Moment (Ma)			1106.66 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			1077.75 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			1.8125 in
Moment of Inertia (Ixxg)			0.8727 in <sup>4</sup>
Section modules (Sxxg)			0.4815 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4219 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.4382 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.8568 in <sup>4</sup>
Section Modules (Sxx-net)			0.4727 in <sup>3</sup>
Cross Sectional Area (Anet)			0.3370 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5363 in
Gross Moment of Inertia (Iyy)			0.1541 in <sup>4</sup>
Radius of Gyration (Ry)			0.6044 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			1.4357 lb/ft
Allowable Shear Force In Web (Unpunched)			3371.56 lb
Allowable Shear Force In Web (Punched)			1015.97 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.2825 in
St. Venant torsion Constant (J x 1000)			0.4505 in <sup>4</sup>
Warping Constant (Cw)			0.4569 in <sup>6</sup>
Radii of Gyration (Ro)			2.0196 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.5967

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>400S162-33 (33 ksi) Structural Stud (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	4.0000 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			2.1436 in
Moment of Inertia for Deflection (Ixx)			0.6921 in <sup>4</sup>
Section Modulus (Sxx)			0.2989 in <sup>3</sup>
Allowable Bending Moment (Ma)			492.21 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			485.78 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			2.0000 in
Moment of Inertia (Ixxg)			0.6921 in <sup>4</sup>
Section modules (Sxxg)			0.3461 in <sup>3</sup>
Cross Sectional Area (Ag)			0.2751 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.5862 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.6824 in <sup>4</sup>
Section Modules (Sxx-net)			0.3412 in <sup>3</sup>
Cross Sectional Area (Anet)			0.2232 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5124 in
Gross Moment of Inertia (Iyy)			0.1026 in <sup>4</sup>
Radius of Gyration (Ry)			0.6108 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			0.9361 lb/ft
Allowable Shear Force In Web (Unpunched)			975.86 lb
Allowable Shear Force In Web (Punched)			594.87 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.2633 in
St. Venant torsion Constant (J x 1000)			0.1098 in <sup>4</sup>
Warping Constant (Cw)			0.3628 in <sup>6</sup>
Radii of Gyration (Ro)			2.1178 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.6442

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>400S162-43 (33 ksi) Structural Stud (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	4.0000 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			2.0660 in
Moment of Inertia for Deflection (Ixx)			0.8919 in <sup>4</sup>
Section Modulus (Sxx)			0.4166 in <sup>3</sup>
Allowable Bending Moment (Ma)			686.00 ft-lb
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$			683.84 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			2.0000 in
Moment of Inertia (Ixxg)			0.8919 in <sup>4</sup>
Section modules (Sxxg)			0.4460 in <sup>3</sup>
Cross Sectional Area (Ag)			0.3567 in <sup>2</sup>
Radius of Gyration (Rxxg)			1.5813 in
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)			0.8792 in <sup>4</sup>
Section Modules (Sxx-net)			0.4396 in <sup>3</sup>
Cross Sectional Area (Anet)			0.2890 in <sup>2</sup>
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.5128 in
Gross Moment of Inertia (Iyy)			0.1311 in <sup>4</sup>
Radius of Gyration (Ry)			0.6062 in
<b>Other Section Properties</b>			
Member Weight per Foot of Length			1.2137 lb/ft
Allowable Shear Force In Web (Unpunched)			1739.09 lb
Allowable Shear Force In Web (Punched)			809.56 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-1.2517 in
St. Venant torsion Constant (J x 1000)			0.2418 in <sup>4</sup>
Warping Constant (Cw)			0.4598 in <sup>6</sup>
Radii of Gyration (Ro)			2.1059 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.6467

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>400S162-54 (50 ksi) Structural Stud (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	4.0000 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	2.0948 in		
Moment of Inertia for Deflection (Ixx)	1.0977 in <sup>4</sup>		
Section Modulus (Sxx)	0.4975 in <sup>3</sup>		
Allowable Bending Moment (Ma)	1241.34 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	1209.78 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	2.0000 in		
Moment of Inertia (Ixxg)	1.0977 in <sup>4</sup>		
Section modulus (Sxxg)	0.5489 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.4431 in <sup>2</sup>		
Radius of Gyration (Rxxg)	1.5739 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	1.0818 in <sup>4</sup>		
Section Modules (Sxx-net)	0.5409 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.3582 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.5120 in		
Gross Moment of Inertia (Iyy)	0.1594 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5997 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.5079 lb/ft		
Allowable Shear Force In Web (Unpunched)	3371.56 lb		
Allowable Shear Force In Web (Punched)	1222.80 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-1.2378 in		
St. Venant torsion Constant (J x 1000)	0.4732 in <sup>4</sup>		
Warping Constant (Cw)	0.5595 in <sup>6</sup>		
Radii of Gyration (Ro)	2.0902 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.6493		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>600S162-33 (33 ksi) Structural Stud (G90)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.0000 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0387 in		
Moment of Inertia for Deflection (Ixx)	1.7928 in <sup>4</sup>		
Section Modulus (Sxx)	0.5773 in <sup>3</sup>		
Allowable Bending Moment (Ma)	950.63 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	760.95 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0000 in		
Moment of Inertia (Ixxg)	1.7928 in <sup>4</sup>		
Section modules (Sxxg)	0.5976 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.3443 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.2819 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	1.7831 in <sup>4</sup>		
Section Modules (Sxx-net)	0.5944 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.2924 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.4129 in		
Gross Moment of Inertia (Iyy)	0.1162 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5809 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.1716 lb/ft		
Allowable Shear Force In Web (Unpunched)	638.07 lb		
Allowable Shear Force In Web (Punched)	638.07 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-1.0723 in		
St. Venant torsion Constant (J x 1000)	0.1374 in <sup>4</sup>		
Warping Constant (Cw)	0.8615 in <sup>6</sup>		
Radii of Gyration (Ro)	2.5874 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.8282		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>600S162-43 (33 ksi) Structural Stud (G90)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.0000 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0000 in		
Moment of Inertia for Deflection (Ixx)	2.3158 in <sup>4</sup>		
Section Modulus (Sxx)	0.7719 in <sup>3</sup>		
Allowable Bending Moment (Ma)	1271.14 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	1087.91 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0000 in		
Moment of Inertia (Ixxg)	2.3158 in <sup>4</sup>		
Section modules (Sxxg)	0.7719 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.4469 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.2764 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	2.3031 in <sup>4</sup>		
Section Modules (Sxx-net)	0.7677 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.3792 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.4139 in		
Gross Moment of Inertia (Iyy)	0.1484 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5762 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.5206 lb/ft		
Allowable Shear Force In Web (Unpunched)	1415.67 lb		
Allowable Shear Force In Web (Punched)	1240.29 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-1.0617 in		
St. Venant torsion Constant (J x 1000)	0.3030 in <sup>4</sup>		
Warping Constant (Cw)	1.0952 in <sup>6</sup>		
Radii of Gyration (Ro)	2.5771 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.8303		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>600S162-54 (50 ksi) Structural Stud (G90)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.0000 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0335 in		
Moment of Inertia for Deflection (Ixx)	2.8604 in <sup>4</sup>		
Section Modulus (Sxx)	0.9272 in <sup>3</sup>		
Allowable Bending Moment (Ma)	2313.36 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	1930.24 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	3.0000 in		
Moment of Inertia (Ixxg)	2.8604 in <sup>4</sup>		
Section modules (Sxxg)	0.9535 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.5563 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.2675 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	2.8445 in <sup>4</sup>		
Section Modules (Sxx-net)	0.9482 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.4714 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.4136 in		
Gross Moment of Inertia (Iyy)	0.1805 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5695 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.8931 lb/ft		
Allowable Shear Force In Web (Unpunched)	2822.88 lb		
Allowable Shear Force In Web (Punched)	1947.40 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-1.0487 in		
St. Venant torsion Constant (J x 1000)	0.5941 in <sup>4</sup>		
Warping Constant (Cw)	1.3372 in <sup>6</sup>		
Radii of Gyration (Ro)	2.5623 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.8325		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>800S162-33 (33 ksi) Structural Stud (G90)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.0000 in	Steel Thickness =	0.0346 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	4.4637 in		
Moment of Inertia for Deflection (Ixx)	3.3844 in <sup>4</sup>		
Section Modulus (Sxx)	0.7098 in <sup>3</sup>		
Allowable Bending Moment (Ma)	1168.89 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	1017.71 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	4.0000 in		
Moment of Inertia (Ixxg)	3.5821 in <sup>4</sup>		
Section modules (Sxxg)	0.8955 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.4135 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.9433 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	3.5723 in <sup>4</sup>		
Section Modules (Sxx-net)	0.8931 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.3616 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.3467 in		
Gross Moment of Inertia (Iyy)	0.1252 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5503 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.4070 lb/ft		
Allowable Shear Force In Web (Unpunched)	474.00 lb		
Allowable Shear Force In Web (Punched)	474.00 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-0.9360 in		
St. Venant torsion Constant (J x 1000)	0.1650 in <sup>4</sup>		
Warping Constant (Cw)	1.6304 in <sup>6</sup>		
Radii of Gyration (Ro)	3.1372 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.9110		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>800S162-43 (33 ksi) Structural Stud (G90)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.0000 in	Steel Thickness =	0.0451 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	33.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	33.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	4.2699 in		
Moment of Inertia for Deflection (Ixx)	4.4998 in <sup>4</sup>		
Section Modulus (Sxx)	1.0192 in <sup>3</sup>		
Allowable Bending Moment (Ma)	1678.40 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	1475.63 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	4.0000 in		
Moment of Inertia (Ixxg)	4.6334 in <sup>4</sup>		
Section modulus (Sxxg)	1.1584 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.5371 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.9372 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	4.6208 in <sup>4</sup>		
Section Modules (Sxx-net)	1.1552 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.4694 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.3482 in		
Gross Moment of Inertia (Iyy)	0.1599 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5456 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	1.8276 lb/ft		
Allowable Shear Force In Web (Unpunched)	1051.15 lb		
Allowable Shear Force In Web (Punched)	1051.15 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-0.9262 in		
St. Venant torsion Constant (J x 1000)	0.3641 in <sup>4</sup>		
Warping Constant (Cw)	2.0758 in <sup>6</sup>		
Radii of Gyration (Ro)	3.1277 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.9123		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>	<b>800S162-54 (50 ksi) Structural Stud (G90)</b>		
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.0000 in	Steel Thickness =	0.0566 in
Top Flange =	1.6250 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.6250 in	Yield Stress, Fy =	50.0000 ksi
Stiffening Lip =	0.5000 in	Fy With Cold-Work, Fya =	50.0000 ksi
Punchout Width =	1.5000 in	Punchout Length =	4.0000 in
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	4.3087 in		
Moment of Inertia for Deflection (Ixx)	5.5998 in <sup>4</sup>		
Section Modulus (Sxx)	1.2288 in <sup>3</sup>		
Allowable Bending Moment (Ma)	3065.91 ft-lb		
Allowable Distortional Buckling Moment (Mda) at $K\phi = 0$	2625.60 ft-lb		
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)	4.0000 in		
Moment of Inertia (Ixxg)	5.7357 in <sup>4</sup>		
Section modules (Sxxg)	1.4339 in <sup>3</sup>		
Cross Sectional Area (Ag)	0.6695 in <sup>2</sup>		
Radius of Gyration (Rxxg)	2.9269 in		
<b>Net Section Properties of the Punched Section, Strong Axis</b>			
Moment of Inertia (Ixx-net)	5.7198 in <sup>4</sup>		
Section Modules (Sxx-net)	1.4299 in <sup>3</sup>		
Cross Sectional Area (Anet)	0.5846 in <sup>2</sup>		
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face	0.3484 in		
Gross Moment of Inertia (Iyy)	0.1944 in <sup>4</sup>		
Radius of Gyration (Ry)	0.5389 in		
<b>Other Section Properties</b>			
Member Weight per Foot of Length	2.2783 lb/ft		
Allowable Shear Force In Web (Unpunched)	2091.28 lb		
Allowable Shear Force In Web (Punched)	2091.28 lb		
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)	-0.9142 in		
St. Venant torsion Constant (J x 1000)	0.7150 in <sup>4</sup>		
Warping Constant (Cw)	2.5386 in <sup>6</sup>		
Radii of Gyration (Ro)	3.1133 in <sup>6</sup>		
Torsional Flexural Constant (Beta)	0.9138		

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **250T100-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.6457 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	1.4320 in
Moment of Inertia for Deflection (Ixx)	0.1498 in <sup>4</sup>
Section Modulus (Sxx)	0.0979 in <sup>3</sup>
Allowable Bending Moment (Ma)	161.21 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	1.3228 in
Moment of Inertia (Ixxg)	0.1624 in <sup>4</sup>
Section modulus (Sxxg)	0.1227 in <sup>3</sup>
Cross Sectional Area (Ag)	0.1556 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0216 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.2324 in
Gross Moment of Inertia (Iyy)	0.0147 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3073 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.5293 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.5556 in
St. Venant torsion Constant (J x 1000)	0.0621 in <sup>4</sup>
Warping Constant (Cw)	0.0179 in <sup>6</sup>
Radii of Gyration (Ro)	1.2029 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7866

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :**                    **250T100-43 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	2.6614 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3978 in
Moment of Inertia for Deflection (Ixx)	0.2065 in <sup>4</sup>
Section Modulus (Sxx)	0.1388 in <sup>3</sup>
Allowable Bending Moment (Ma)	228.60 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3307 in
Moment of Inertia (Ixxg)	0.2118 in <sup>4</sup>
Section modules (Sxxg)	0.1592 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2025 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0227 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2356 in
Gross Moment of Inertia (Iyy)	0.0189 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3053 in

**Other Section Property Data**

Member Weight per Foot of Length	0.6892 lb/ft
Allowable Shear Force In Web (Unpunched)	1355.54 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5510 in
St. Venant torsion Constant (J x 1000)	0.1373 in <sup>4</sup>
Warping Constant (Cw)	0.0231 in <sup>6</sup>
Radii of Gyration (Ro)	1.2011 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7896

Location (1) and (6) are tip of compression and tension lip respectively  
 Location (2) and (5) are flange/lip corner of compression and tension side respectively  
 Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T100-54 (50 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	2.6981 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.4074 in
Moment of Inertia for Deflection (Ixx)	0.2646 in <sup>4</sup>
Section Modulus (Sxx)	0.1772 in <sup>3</sup>
Allowable Bending Moment (Ma)	442.09 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3491 in
Moment of Inertia (Ixxg)	0.2689 in <sup>4</sup>
Section modules (Sxxg)	0.1993 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2540 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0290 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2391 in
Gross Moment of Inertia (Iyy)	0.0233 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3029 in

**Other Section Property Data**

Member Weight per Foot of Length	0.8643 lb/ft
Allowable Shear Force In Web (Unpunched)	2563.02 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5452 in
St. Venant torsion Constant (J x 1000)	0.2712 in <sup>4</sup>
Warping Constant (Cw)	0.0292 in <sup>6</sup>
Radii of Gyration (Ro)	1.2032 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7947

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **250T125-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.6457 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	1.4924 in
Moment of Inertia for Deflection (Ixx)	0.1657 in <sup>4</sup>
Section Modulus (Sxx)	0.1029 in <sup>3</sup>
Allowable Bending Moment (Ma)	169.45 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	1.3228 in
Moment of Inertia (Ixxg)	0.1919 in <sup>4</sup>
Section modulus (Sxxg)	0.1450 in <sup>3</sup>
Cross Sectional Area (Ag)	0.1729 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0535 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.3217 in
Gross Moment of Inertia (Iyy)	0.0272 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3966 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.5882 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.7599 in
St. Venant torsion Constant (J x 1000)	0.0690 in <sup>4</sup>
Warping Constant (Cw)	0.0328 in <sup>6</sup>
Radii of Gyration (Ro)	1.3582 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.6869

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T125-43 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	2.6614 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.4541 in
Moment of Inertia for Deflection (Ixx)	0.2310 in <sup>4</sup>
Section Modulus (Sxx)	0.1472 in <sup>3</sup>
Allowable Bending Moment (Ma)	242.41 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3307 in
Moment of Inertia (Ixxg)	0.2504 in <sup>4</sup>
Section modulus (Sxxg)	0.1882 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2251 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0548 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3247 in
Gross Moment of Inertia (Iyy)	0.0350 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3946 in

**Other Section Property Data**

Member Weight per Foot of Length	0.7659 lb/ft
Allowable Shear Force In Web (Unpunched)	1355.54 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.7550 in
St. Venant torsion Constant (J x 1000)	0.1526 in <sup>4</sup>
Warping Constant (Cw)	0.0425 in <sup>6</sup>
Radii of Gyration (Ro)	1.3558 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.6899

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **250T125-54 (50 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	2.6981 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.4634 in
Moment of Inertia for Deflection (Ixx)	0.2967 in <sup>4</sup>
Section Modulus (Sxx)	0.1884 in <sup>3</sup>
Allowable Bending Moment (Ma)	470.02 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3491 in
Moment of Inertia (Ixxg)	0.3183 in <sup>4</sup>
Section modules (Sxxg)	0.2359 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2823 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0618 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3279 in
Gross Moment of Inertia (Iyy)	0.0434 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3923 in

**Other Section Property Data**

Member Weight per Foot of Length	0.9606 lb/ft
Allowable Shear Force In Web (Unpunched)	2563.02 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.7486 in
St. Venant torsion Constant (J x 1000)	0.3015 in <sup>4</sup>
Warping Constant (Cw)	0.0539 in <sup>6</sup>
Radii of Gyration (Ro)	1.3571 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.6957

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T150-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.6457 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.5485 in
Moment of Inertia for Deflection (Ixx)	0.1795 in <sup>4</sup>
Section Modulus (Sxx)	0.1068 in <sup>3</sup>
Allowable Bending Moment (Ma)	175.80 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.3228 in
Moment of Inertia (Ixxg)	0.2213 in <sup>4</sup>
Section modules (Sxxg)	0.1673 in <sup>3</sup>
Cross Sectional Area (Ag)	0.1902 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0789 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.4175 in
Gross Moment of Inertia (Iyy)	0.0447 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4849 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.6471 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.9734 in
St. Venant torsion Constant (J x 1000)	0.0759 in <sup>4</sup>
Warping Constant (Cw)	0.0538 in <sup>6</sup>
Radii of Gyration (Ro)	1.5318 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.5962

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T150-43 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	2.6614 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.5080 in
Moment of Inertia for Deflection (Ixx)	0.2522 in <sup>4</sup>
Section Modulus (Sxx)	0.1535 in <sup>3</sup>
Allowable Bending Moment (Ma)	252.83 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3307 in
Moment of Inertia (Ixxg)	0.2890 in <sup>4</sup>
Section modulus (Sxxg)	0.2172 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2476 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0803 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.4203 in
Gross Moment of Inertia (Iyy)	0.0578 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4830 in

**Other Section Property Data**

Member Weight per Foot of Length	0.8426 lb/ft
Allowable Shear Force In Web (Unpunched)	1355.54 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.9682 in
St. Venant torsion Constant (J x 1000)	0.1679 in <sup>4</sup>
Warping Constant (Cw)	0.0698 in <sup>6</sup>
Radii of Gyration (Ro)	1.5289 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.5990

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T150-54 (50 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.6981 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.5174 in
Moment of Inertia for Deflection (Ixx)	0.3245 in <sup>4</sup>
Section Modulus (Sxx)	0.1968 in <sup>3</sup>
Allowable Bending Moment (Ma)	490.95 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.3491 in
Moment of Inertia (Ixxg)	0.3677 in <sup>4</sup>
Section modules (Sxxg)	0.2725 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3106 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0880 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.4233 in
Gross Moment of Inertia (Iyy)	0.0718 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4808 in

**Other Section Property Data**


---

Member Weight per Foot of Length	1.0569 lb/ft
Allowable Shear Force In Web (Unpunched)	2563.02 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.9614 in
St. Venant torsion Constant (J x 1000)	0.3317 in <sup>4</sup>
Warping Constant (Cw)	0.0887 in <sup>6</sup>
Radii of Gyration (Ro)	1.5294 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.6048

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T100-33 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	3.7707 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0082 in
Moment of Inertia for Deflection (Ixx)	0.3517 in <sup>4</sup>
Section Modulus (Sxx)	0.1659 in <sup>3</sup>
Allowable Bending Moment (Ma)	273.15 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.8853 in
Moment of Inertia (Ixxg)	0.3778 in <sup>4</sup>
Section modulus (Sxxg)	0.2004 in <sup>3</sup>
Cross Sectional Area (Ag)	0.1945 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.3937 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.1893 in
Gross Moment of Inertia (Iyy)	0.0161 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2880 in

**Other Section Property Data**

Member Weight per Foot of Length	0.6618 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.4728 in
St. Venant torsion Constant (J x 1000)	0.0776 in <sup>4</sup>
Warping Constant (Cw)	0.0413 in <sup>6</sup>
Radii of Gyration (Ro)	1.4996 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9006

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T100-43 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	3.7864 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.9691 in
Moment of Inertia for Deflection (Ixx)	0.4810 in <sup>4</sup>
Section Modulus (Sxx)	0.2318 in <sup>3</sup>
Allowable Bending Moment (Ma)	381.71 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8932 in
Moment of Inertia (Ixxg)	0.4924 in <sup>4</sup>
Section modulus (Sxxg)	0.2601 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2533 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.3944 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1929 in
Gross Moment of Inertia (Iyy)	0.0207 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2860 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.8618 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4687 in
St. Venant torsion Constant (J x 1000)	0.1717 in <sup>4</sup>
Warping Constant (Cw)	0.0533 in <sup>6</sup>
Radii of Gyration (Ro)	1.4986 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9022

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T100-54 (50 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	3.8231 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.9774 in
Moment of Inertia for Deflection (Ixx)	0.6126 in <sup>4</sup>
Section Modulus (Sxx)	0.2947 in <sup>3</sup>
Allowable Bending Moment (Ma)	735.36 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.9116 in
Moment of Inertia (Ixxg)	0.6222 in <sup>4</sup>
Section modules (Sxxg)	0.3255 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3177 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.3995 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1968 in
Gross Moment of Inertia (Iyy)	0.0256 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2837 in

**Other Section Property Data**


---

Member Weight per Foot of Length	1.0810 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4637 in
St. Venant torsion Constant (J x 1000)	0.3392 in <sup>4</sup>
Warping Constant (Cw)	0.0668 in <sup>6</sup>
Radii of Gyration (Ro)	1.5014 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9046

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T125-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.7707 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0788 in
Moment of Inertia for Deflection (Ixx)	0.3845 in <sup>4</sup>
Section Modulus (Sxx)	0.1739 in <sup>3</sup>
Allowable Bending Moment (Ma)	286.44 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8853 in
Moment of Inertia (Ixxg)	0.4381 in <sup>4</sup>
Section modulus (Sxxg)	0.2324 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2118 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4383 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2658 in
Gross Moment of Inertia (Iyy)	0.0301 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3772 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.7207 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6580 in
St. Venant torsion Constant (J x 1000)	0.0845 in <sup>4</sup>
Warping Constant (Cw)	0.0756 in <sup>6</sup>
Radii of Gyration (Ro)	1.6260 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8363

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T125-43 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	3.7864 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0348 in
Moment of Inertia for Deflection (Ixx)	0.5308 in <sup>4</sup>
Section Modulus (Sxx)	0.2449 in <sup>3</sup>
Allowable Bending Moment (Ma)	403.25 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8932 in
Moment of Inertia (Ixxg)	0.5713 in <sup>4</sup>
Section modules (Sxxg)	0.3018 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2758 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4392 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2691 in
Gross Moment of Inertia (Iyy)	0.0388 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3752 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.9386 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6535 in
St. Venant torsion Constant (J x 1000)	0.1870 in <sup>4</sup>
Warping Constant (Cw)	0.0978 in <sup>6</sup>
Radii of Gyration (Ro)	1.6246 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8382

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 362T125-54 (50 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	3.8231 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0425 in
Moment of Inertia for Deflection (Ixx)	0.6777 in <sup>4</sup>
Section Modulus (Sxx)	0.3120 in <sup>3</sup>
Allowable Bending Moment (Ma)	778.52 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.9116 in
Moment of Inertia (Ixxg)	0.7226 in <sup>4</sup>
Section modules (Sxxg)	0.3780 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3460 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4452 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2728 in
Gross Moment of Inertia (Iyy)	0.0481 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3729 in

**Other Section Property Data**

Member Weight per Foot of Length	1.1773 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.6480 in
St. Venant torsion Constant (J x 1000)	0.3695 in <sup>4</sup>
Warping Constant (Cw)	0.1231 in <sup>6</sup>
Radii of Gyration (Ro)	1.6271 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8414

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T150-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.7707 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.1457 in
Moment of Inertia for Deflection (Ixx)	0.4136 in <sup>4</sup>
Section Modulus (Sxx)	0.1804 in <sup>3</sup>
Allowable Bending Moment (Ma)	297.07 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8853 in
Moment of Inertia (Ixxg)	0.4985 in <sup>4</sup>
Section modules (Sxxg)	0.2644 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2291 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4752 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.3495 in
Gross Moment of Inertia (Iyy)	0.0499 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4667 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.7795 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.8543 in
St. Venant torsion Constant (J x 1000)	0.0914 in <sup>4</sup>
Warping Constant (Cw)	0.1238 in <sup>6</sup>
Radii of Gyration (Ro)	1.7674 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7664

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 362T150-43 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	3.7864 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0989 in
Moment of Inertia for Deflection (Ixx)	0.5744 in <sup>4</sup>
Section Modulus (Sxx)	0.2551 in <sup>3</sup>
Allowable Bending Moment (Ma)	420.05 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.8932 in
Moment of Inertia (Ixxg)	0.6502 in <sup>4</sup>
Section modulus (Sxxg)	0.3435 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2984 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4763 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3527 in
Gross Moment of Inertia (Iyy)	0.0644 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4647 in

**Other Section Property Data**

Member Weight per Foot of Length	1.0153 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.8496 in
St. Venant torsion Constant (J x 1000)	0.2023 in <sup>4</sup>
Warping Constant (Cw)	0.1604 in <sup>6</sup>
Radii of Gyration (Ro)	1.7655 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7684

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T150-54 (50 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	3.8231 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.1066 in
Moment of Inertia for Deflection (Ixx)	0.7346 in <sup>4</sup>
Section Modulus (Sxx)	0.3254 in <sup>3</sup>
Allowable Bending Moment (Ma)	811.94 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.9116 in
Moment of Inertia (Ixxg)	0.8230 in <sup>4</sup>
Section modulus (Sxxg)	0.4305 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3743 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4828 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.3561 in
Gross Moment of Inertia (Iyy)	0.0800 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4624 in

**Other Section Property Data**


---

Member Weight per Foot of Length	1.2736 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.8436 in
St. Venant torsion Constant (J x 1000)	0.3997 in <sup>4</sup>
Warping Constant (Cw)	0.2023 in <sup>6</sup>
Radii of Gyration (Ro)	1.7676 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7722

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 400T100-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.2602 in
Moment of Inertia for Deflection (Ixx)	0.4466 in <sup>4</sup>
Section Modulus (Sxx)	0.1810 in <sup>3</sup>
Allowable Bending Moment (Ma)	298.12 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0728 in
Moment of Inertia (Ixxg)	0.4757 in <sup>4</sup>
Section modulus (Sxxg)	0.2295 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2075 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5143 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1786 in
Gross Moment of Inertia (Iyy)	0.0165 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2819 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.7059 lb/ft
Allowable Shear Force In Web (Unpunched)	939.64 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4508 in
St. Venant torsion Constant (J x 1000)	0.0828 in <sup>4</sup>
Warping Constant (Cw)	0.0516 in <sup>6</sup>
Radii of Gyration (Ro)	1.6049 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9211

---

Location (1) and (6) are tip of compression and tension lip respectively  
 Location (2) and (5) are flange/lip corner of compression and tension side respectively  
 Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 400T100-43 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.1588 in
Moment of Inertia for Deflection (Ixx)	0.6059 in <sup>4</sup>
Section Modulus (Sxx)	0.2671 in <sup>3</sup>
Allowable Bending Moment (Ma)	439.78 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0807 in
Moment of Inertia (Ixxg)	0.6200 in <sup>4</sup>
Section modulus (Sxxg)	0.2980 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2702 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5148 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1822 in
Gross Moment of Inertia (Iyy)	0.0212 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2800 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.9194 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4469 in
St. Venant torsion Constant (J x 1000)	0.1832 in <sup>4</sup>
Warping Constant (Cw)	0.0665 in <sup>6</sup>
Radii of Gyration (Ro)	1.6040 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9224

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T100-54 (50 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.1668 in
Moment of Inertia for Deflection (Ixx)	0.7708 in <sup>4</sup>
Section Modulus (Sxx)	0.3393 in <sup>3</sup>
Allowable Bending Moment (Ma)	846.48 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0991 in
Moment of Inertia (Ixxg)	0.7827 in <sup>4</sup>
Section modules (Sxxg)	0.3729 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3389 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5197 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1863 in
Gross Moment of Inertia (Iyy)	0.0261 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2777 in

**Other Section Property Data**


---

Member Weight per Foot of Length	1.1532 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4421 in
St. Venant torsion Constant (J x 1000)	0.3619 in <sup>4</sup>
Warping Constant (Cw)	0.0834 in <sup>6</sup>
Radii of Gyration (Ro)	1.6069 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9243

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T125-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	4.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.2722 in
Moment of Inertia for Deflection (Ixx)	0.4839 in <sup>4</sup>
Section Modulus (Sxx)	0.2010 in <sup>3</sup>
Allowable Bending Moment (Ma)	330.96 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0728 in
Moment of Inertia (Ixxg)	0.5488 in <sup>4</sup>
Section modules (Sxxg)	0.2648 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2248 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5626 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2514 in
Gross Moment of Inertia (Iyy)	0.0309 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3707 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.7648 lb/ft
Allowable Shear Force In Web (Unpunched)	939.64 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6303 in
St. Venant torsion Constant (J x 1000)	0.0897 in <sup>4</sup>
Warping Constant (Cw)	0.0946 in <sup>6</sup>
Radii of Gyration (Ro)	1.7252 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8665

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 400T125-43 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.2268 in
Moment of Inertia for Deflection (Ixx)	0.6662 in <sup>4</sup>
Section Modulus (Sxx)	0.2818 in <sup>3</sup>
Allowable Bending Moment (Ma)	464.01 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0807 in
Moment of Inertia (Ixxg)	0.7155 in <sup>4</sup>
Section modules (Sxxg)	0.3439 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2927 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5634 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2549 in
Gross Moment of Inertia (Iyy)	0.0398 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3687 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.9961 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6260 in
St. Venant torsion Constant (J x 1000)	0.1985 in <sup>4</sup>
Warping Constant (Cw)	0.1222 in <sup>6</sup>
Radii of Gyration (Ro)	1.7240 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8681

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T125-54 (50 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	4.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.2341 in
Moment of Inertia for Deflection (Ixx)	0.8494 in <sup>4</sup>
Section Modulus (Sxx)	0.3587 in <sup>3</sup>
Allowable Bending Moment (Ma)	894.90 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0991 in
Moment of Inertia (Ixxg)	0.9040 in <sup>4</sup>
Section modules (Sxxg)	0.4307 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3672 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5691 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2586 in
Gross Moment of Inertia (Iyy)	0.0493 in <sup>4</sup>
Radius of Gyration (Ry)	0.3664 in

**Other Section Property Data**

Member Weight per Foot of Length	1.2495 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.6207 in
St. Venant torsion Constant (J x 1000)	0.3921 in <sup>4</sup>
Warping Constant (Cw)	0.1536 in <sup>6</sup>
Radii of Gyration (Ro)	1.7267 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8708

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 400T150-33 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	4.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.3420 in
Moment of Inertia for Deflection (Ixx)	0.5193 in <sup>4</sup>
Section Modulus (Sxx)	0.2084 in <sup>3</sup>
Allowable Bending Moment (Ma)	343.12 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0728 in
Moment of Inertia (Ixxg)	0.6219 in <sup>4</sup>
Section modules (Sxxg)	0.3000 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2421 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.6029 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3317 in
Gross Moment of Inertia (Iyy)	0.0513 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4601 in

**Other Section Property Data**

Member Weight per Foot of Length	0.8237 lb/ft
Allowable Shear Force In Web (Unpunched)	939.64 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.8215 in
St. Venant torsion Constant (J x 1000)	0.0966 in <sup>4</sup>
Warping Constant (Cw)	0.1547 in <sup>6</sup>
Radii of Gyration (Ro)	1.8590 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8047

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 400T150-43 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	4.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.2937 in
Moment of Inertia for Deflection (Ixx)	0.7192 in <sup>4</sup>
Section Modulus (Sxx)	0.2933 in <sup>3</sup>
Allowable Bending Moment (Ma)	483.06 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0807 in
Moment of Inertia (Ixxg)	0.8110 in <sup>4</sup>
Section modules (Sxxg)	0.3898 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3153 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.6039 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3350 in
Gross Moment of Inertia (Iyy)	0.0662 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4582 in

**Other Section Property Data**

Member Weight per Foot of Length	1.0728 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.8169 in
St. Venant torsion Constant (J x 1000)	0.2138 in <sup>4</sup>
Warping Constant (Cw)	0.2004 in <sup>6</sup>
Radii of Gyration (Ro)	1.8573 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8066

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T150-54 (50 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	4.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.3008 in
Moment of Inertia for Deflection (Ixx)	0.9183 in <sup>4</sup>
Section Modulus (Sxx)	0.3738 in <sup>3</sup>
Allowable Bending Moment (Ma)	932.71 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0991 in
Moment of Inertia (Ixxg)	1.0254 in <sup>4</sup>
Section modules (Sxxg)	0.4885 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3955 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.6102 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.3385 in
Gross Moment of Inertia (Iyy)	0.0822 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4559 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.3458 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.8111 in
St. Venant torsion Constant (J x 1000)	0.4223 in <sup>4</sup>
Warping Constant (Cw)	0.2524 in <sup>6</sup>
Radii of Gyration (Ro)	1.8597 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8098

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 600T100-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	6.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.5290 in
Moment of Inertia for Deflection (Ixx)	1.1704 in <sup>4</sup>
Section Modulus (Sxx)	0.2888 in <sup>3</sup>
Allowable Bending Moment (Ma)	475.51 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.0728 in
Moment of Inertia (Ixxg)	1.2667 in <sup>4</sup>
Section modulus (Sxxg)	0.4122 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2767 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.1397 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.1382 in
Gross Moment of Inertia (Iyy)	0.0178 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2539 in

**Other Section Property Data**

Member Weight per Foot of Length	0.9414 lb/ft
Allowable Shear Force In Web (Unpunched)	622.38 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.3622 in
St. Venant torsion Constant (J x 1000)	0.1104 in <sup>4</sup>
Warping Constant (Cw)	0.1291 in <sup>6</sup>
Radii of Gyration (Ro)	2.1850 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9725

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 600T100-43 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**

Web Height =	6.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.3187 in
Moment of Inertia for Deflection (Ixx)	1.6290 in <sup>4</sup>
Section Modulus (Sxx)	0.4442 in <sup>3</sup>
Allowable Bending Moment (Ma)	731.44 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.0807 in
Moment of Inertia (Ixxg)	1.6502 in <sup>4</sup>
Section modules (Sxxg)	0.5357 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3604 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.1399 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.1423 in
Gross Moment of Inertia (Iyy)	0.0229 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2521 in

**Other Section Property Data**

Member Weight per Foot of Length	1.2263 lb/ft
Allowable Shear Force In Web (Unpunched)	1377.13 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.3590 in
St. Venant torsion Constant (J x 1000)	0.2443 in <sup>4</sup>
Warping Constant (Cw)	0.1662 in <sup>6</sup>
Radii of Gyration (Ro)	2.1844 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9730

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>600T100-54 (50 ksi) Track (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.3085 in
Moment of Inertia for Deflection (Ixx)			2.0615 in <sup>4</sup>
Section Modulus (Sxx)			0.5693 in <sup>3</sup>
Allowable Bending Moment (Ma)			1420.48 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.0991 in
Moment of Inertia (Ixxg)			2.0773 in <sup>4</sup>
Section modulus (Sxxg)			0.6703 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4521 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.1435 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.1467 in
Gross Moment of Inertia (Iyy)			0.0283 in <sup>4</sup>
Radius of Gyration (Ryy)			0.2500 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.5384 lb/ft
Allowable Shear Force In Web (Unpunched)			2728.34 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.3550 in
St. Venant torsion Constant (J x 1000)			0.4828 in <sup>4</sup>
Warping Constant (Cw)			0.2072 in <sup>6</sup>
Radii of Gyration (Ro)			2.1871 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9736
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 600T125-33 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	6.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.6345 in
Moment of Inertia for Deflection (Ixx)	1.2576 in <sup>4</sup>
Section Modulus (Sxx)	0.2970 in <sup>3</sup>
Allowable Bending Moment (Ma)	489.04 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.0728 in
Moment of Inertia (Ixxg)	1.4282 in <sup>4</sup>
Section modules (Sxxg)	0.4648 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2940 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2042 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.1963 in
Gross Moment of Inertia (Iyy)	0.0338 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3390 in

**Other Section Property Data**

Member Weight per Foot of Length	1.0003 lb/ft
Allowable Shear Force In Web (Unpunched)	622.38 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5165 in
St. Venant torsion Constant (J x 1000)	0.1173 in <sup>4</sup>
Warping Constant (Cw)	0.2377 in <sup>6</sup>
Radii of Gyration (Ro)	2.2891 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9491

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :**                    **600T125-43 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	6.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	3.4121 in
Moment of Inertia for Deflection (Ixx)	1.7680 in <sup>4</sup>
Section Modulus (Sxx)	0.4612 in <sup>3</sup>
Allowable Bending Moment (Ma)	759.40 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	3.0807 in
Moment of Inertia (Ixxg)	1.8611 in <sup>4</sup>
Section modulus (Sxxg)	0.6041 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3829 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2046 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.2001 in
Gross Moment of Inertia (Iyy)	0.0435 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3371 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.3030 lb/ft
Allowable Shear Force In Web (Unpunched)	1377.13 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.5129 in
St. Venant torsion Constant (J x 1000)	0.2596 in <sup>4</sup>
Warping Constant (Cw)	0.3069 in <sup>6</sup>
Radii of Gyration (Ro)	2.2884 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9498

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Location (1) and (6) are tip of compression and tension lip respectively  
 Location (2) and (5) are flange/lip corner of compression and tension side respectively  
 Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>600T125-54 (50 ksi) Track (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.4000 in
Moment of Inertia for Deflection (Ixx)			2.2409 in <sup>4</sup>
Section Modulus (Sxx)			0.5923 in <sup>3</sup>
Allowable Bending Moment (Ma)			1477.90 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.0991 in
Moment of Inertia (Ixxg)			2.3442 in <sup>4</sup>
Section modulus (Sxxg)			0.7564 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4804 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.2090 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.2044 in
Gross Moment of Inertia (Iyy)			0.0539 in <sup>4</sup>
Radius of Gyration (Ryy)			0.3349 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.6347 lb/ft
Allowable Shear Force In Web (Unpunched)			2728.34 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.5084 in
St. Venant torsion Constant (J x 1000)			0.5130 in <sup>4</sup>
Warping Constant (Cw)			0.3840 in <sup>6</sup>
Radii of Gyration (Ro)			2.2913 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9508
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 600T150-33 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	6.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.7371 in
Moment of Inertia for Deflection (Ixx)	1.3343 in <sup>4</sup>
Section Modulus (Sxx)	0.3029 in <sup>3</sup>
Allowable Bending Moment (Ma)	498.79 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.0728 in
Moment of Inertia (Ixxg)	1.5897 in <sup>4</sup>
Section modules (Sxxg)	0.5173 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3113 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2599 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2618 in
Gross Moment of Inertia (Iyy)	0.0566 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4263 in

**Other Section Property Data**

Member Weight per Foot of Length	1.0592 lb/ft
Allowable Shear Force In Web (Unpunched)	622.38 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.6840 in
St. Venant torsion Constant (J x 1000)	0.1242 in <sup>4</sup>
Warping Constant (Cw)	0.3899 in <sup>6</sup>
Radii of Gyration (Ro)	2.3993 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9187

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 600T150-43 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	6.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.5062 in
Moment of Inertia for Deflection (Ixx)	1.8897 in <sup>4</sup>
Section Modulus (Sxx)	0.4736 in <sup>3</sup>
Allowable Bending Moment (Ma)	779.85 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.0807 in
Moment of Inertia (Ixxg)	2.0720 in <sup>4</sup>
Section modulus (Sxxg)	0.6726 in <sup>3</sup>
Cross Sectional Area (Ag)	0.4055 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2605 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2655 in
Gross Moment of Inertia (Iyy)	0.0730 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4244 in

**Other Section Property Data**

Member Weight per Foot of Length	1.3798 lb/ft
Allowable Shear Force In Web (Unpunched)	1377.13 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.6801 in
St. Venant torsion Constant (J x 1000)	0.2749 in <sup>4</sup>
Warping Constant (Cw)	0.5044 in <sup>6</sup>
Radii of Gyration (Ro)	2.3984 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9196

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 600T150-54 (50 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	6.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.4931 in
Moment of Inertia for Deflection (Ixx)	2.4004 in <sup>4</sup>
Section Modulus (Sxx)	0.6091 in <sup>3</sup>
Allowable Bending Moment (Ma)	1519.75 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.0991 in
Moment of Inertia (Ixxg)	2.6110 in <sup>4</sup>
Section modulus (Sxxg)	0.8425 in <sup>3</sup>
Cross Sectional Area (Ag)	0.5087 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2655 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2695 in
Gross Moment of Inertia (Iyy)	0.0907 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4222 in

**Other Section Property Data**

Member Weight per Foot of Length	1.7310 lb/ft
Allowable Shear Force In Web (Unpunched)	2728.34 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.6752 in
St. Venant torsion Constant (J x 1000)	0.5432 in <sup>4</sup>
Warping Constant (Cw)	0.6325 in <sup>6</sup>
Radii of Gyration (Ro)	2.4014 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9209

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **800T100-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	8.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	4.8979 in
Moment of Inertia for Deflection (Ixx)	2.2947 in <sup>4</sup>
Section Modulus (Sxx)	0.3965 in <sup>3</sup>
Allowable Bending Moment (Ma)	652.99 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	4.0728 in
Moment of Inertia (Ixxg)	2.6109 in <sup>4</sup>
Section modules (Sxxg)	0.6411 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3459 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.7475 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.1140 in
Gross Moment of Inertia (Iyy)	0.0186 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2322 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.1769 lb/ft
Allowable Shear Force In Web (Unpunched)	465.29 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.3036 in
St. Venant torsion Constant (J x 1000)	0.1380 in <sup>4</sup>
Warping Constant (Cw)	0.2464 in <sup>6</sup>
Radii of Gyration (Ro)	2.7740 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9880

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

**\*\*\* WEB DEPTH-TO-THICKNESS = 229 > 200 \*\*\***

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>800T100-43 (33 ksi) Track (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.6030 in
Moment of Inertia for Deflection (Ixx)			3.2470 in <sup>4</sup>
Section Modulus (Sxx)			0.6196 in <sup>3</sup>
Allowable Bending Moment (Ma)			1020.37 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.0807 in
Moment of Inertia (Ixxg)			3.4012 in <sup>4</sup>
Section modulus (Sxxg)			0.8335 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4506 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.7474 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.1183 in
Gross Moment of Inertia (Iyy)			0.0239 in <sup>4</sup>
Radius of Gyration (Ryy)			0.2305 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.5332 lb/ft
Allowable Shear Force In Web (Unpunched)			1029.75 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.3008 in
St. Venant torsion Constant (J x 1000)			0.3055 in <sup>4</sup>
Warping Constant (Cw)			0.3169 in <sup>6</sup>
Radii of Gyration (Ro)			2.7734 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9882
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :**                    **800T100-54 (50 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	8.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.5819 in
Moment of Inertia for Deflection (Ixx)	4.1183 in <sup>4</sup>
Section Modulus (Sxx)	0.7958 in <sup>3</sup>
Allowable Bending Moment (Ma)	1985.43 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.0991 in
Moment of Inertia (Ixxg)	4.2761 in <sup>4</sup>
Section modulus (Sxxg)	1.0432 in <sup>3</sup>
Cross Sectional Area (Ag)	0.5653 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.7503 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.1230 in
Gross Moment of Inertia (Iyy)	0.0295 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2285 in

**Other Section Property Data**

Member Weight per Foot of Length	1.9236 lb/ft
Allowable Shear Force In Web (Unpunched)	2038.94 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.2975 in
St. Venant torsion Constant (J x 1000)	0.6037 in <sup>4</sup>
Warping Constant (Cw)	0.3941 in <sup>6</sup>
Radii of Gyration (Ro)	2.7758 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9885

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **800T125-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	8.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	5.0151 in
Moment of Inertia for Deflection (Ixx)	2.4412 in <sup>4</sup>
Section Modulus (Sxx)	0.4066 in <sup>3</sup>
Allowable Bending Moment (Ma)	669.49 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	4.0728 in
Moment of Inertia (Ixxg)	2.8955 in <sup>4</sup>
Section modulus (Sxxg)	0.7109 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3632 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.8236 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.1622 in
Gross Moment of Inertia (Iyy)	0.0356 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3130 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.2358 lb/ft
Allowable Shear Force In Web (Unpunched)	465.29 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4389 in
St. Venant torsion Constant (J x 1000)	0.1449 in <sup>4</sup>
Warping Constant (Cw)	0.4564 in <sup>6</sup>
Radii of Gyration (Ro)	2.8746 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9767

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

**\*\*\* WEB DEPTH-TO-THICKNESS = 229 > 200 \*\*\***

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>800T125-43 (33 ksi) Track (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.7076 in
Moment of Inertia for Deflection (Ixx)			3.4838 in <sup>4</sup>
Section Modulus (Sxx)			0.6403 in <sup>3</sup>
Allowable Bending Moment (Ma)			1054.33 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.0807 in
Moment of Inertia (Ixxg)			3.7725 in <sup>4</sup>
Section modules (Sxxg)			0.9245 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4731 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.8237 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.1663 in
Gross Moment of Inertia (Iyy)			0.0458 in <sup>4</sup>
Radius of Gyration (Ryy)			0.3112 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.6100 lb/ft
Allowable Shear Force In Web (Unpunched)			1029.75 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.4357 in
St. Venant torsion Constant (J x 1000)			0.3208 in <sup>4</sup>
Warping Constant (Cw)			0.5890 in <sup>6</sup>
Radii of Gyration (Ro)			2.8741 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9770
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>800T125-54 (50 ksi) Track (G60)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.6844 in
Moment of Inertia for Deflection (Ixx)			4.4257 in <sup>4</sup>
Section Modulus (Sxx)			0.8237 in <sup>3</sup>
Allowable Bending Moment (Ma)			2055.18 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.0991 in
Moment of Inertia (Ixxg)			4.7451 in <sup>4</sup>
Section modulus (Sxxg)			1.1576 in <sup>3</sup>
Cross Sectional Area (Ag)			0.5936 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.8273 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.1708 in
Gross Moment of Inertia (Iyy)			0.0567 in <sup>4</sup>
Radius of Gyration (Ryy)			0.3091 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			2.0199 lb/ft
Allowable Shear Force In Web (Unpunched)			2038.94 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.4319 in
St. Venant torsion Constant (J x 1000)			0.6339 in <sup>4</sup>
Warping Constant (Cw)			0.7350 in <sup>6</sup>
Radii of Gyration (Ro)			2.8768 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9775
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **800T150-33 (33 ksi) Track (G60)**


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**PHYSICAL PROPERTIES :**


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Web Height =	8.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	5.1308 in
Moment of Inertia for Deflection (Ixx)	2.5688 in <sup>4</sup>
Section Modulus (Sxx)	0.4138 in <sup>3</sup>
Allowable Bending Moment (Ma)	681.40 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	4.0728 in
Moment of Inertia (Ixxg)	3.1800 in <sup>4</sup>
Section modules (Sxxg)	0.7808 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3805 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.8911 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2173 in
Gross Moment of Inertia (Iyy)	0.0600 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3970 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.2946 lb/ft
Allowable Shear Force In Web (Unpunched)	465.29 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.5878 in
St. Venant torsion Constant (J x 1000)	0.1518 in <sup>4</sup>
Warping Constant (Cw)	0.7515 in <sup>6</sup>
Radii of Gyration (Ro)	2.9768 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9610

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

**\*\*\* WEB DEPTH-TO-THICKNESS = 229 > 200 \*\*\***

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 800T150-43 (33 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	8.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.8147 in
Moment of Inertia for Deflection (Ixx)	3.6892 in <sup>4</sup>
Section Modulus (Sxx)	0.6552 in <sup>3</sup>
Allowable Bending Moment (Ma)	1078.94 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.0807 in
Moment of Inertia (Ixxg)	4.1439 in <sup>4</sup>
Section modulus (Sxxg)	1.0155 in <sup>3</sup>
Cross Sectional Area (Ag)	0.4957 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.8914 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2213 in
Gross Moment of Inertia (Iyy)	0.0774 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3951 in

**Other Section Property Data**

Member Weight per Foot of Length	1.6867 lb/ft
Allowable Shear Force In Web (Unpunched)	1029.75 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5844 in
St. Venant torsion Constant (J x 1000)	0.3361 in <sup>4</sup>
Warping Constant (Cw)	0.9717 in <sup>6</sup>
Radii of Gyration (Ro)	2.9762 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9614

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 800T150-54 (50 ksi) Track (G60)**
**PHYSICAL PROPERTIES :**

Web Height =	8.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.7904 in
Moment of Inertia for Deflection (Ixx)	4.6923 in <sup>4</sup>
Section Modulus (Sxx)	0.8439 in <sup>3</sup>
Allowable Bending Moment (Ma)	2105.47 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.0991 in
Moment of Inertia (Ixxg)	5.2140 in <sup>4</sup>
Section modulus (Sxxg)	1.2720 in <sup>3</sup>
Cross Sectional Area (Ag)	0.6219 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.8955 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2256 in
Gross Moment of Inertia (Iyy)	0.0961 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3930 in

**Other Section Property Data**

Member Weight per Foot of Length	2.1162 lb/ft
Allowable Shear Force In Web (Unpunched)	2038.94 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5801 in
St. Venant torsion Constant (J x 1000)	0.6641 in <sup>4</sup>
Warping Constant (Cw)	1.2154 in <sup>6</sup>
Radii of Gyration (Ro)	2.9791 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9621

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T100-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.6457 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.4320 in
Moment of Inertia for Deflection (Ixx)	0.1498 in <sup>4</sup>
Section Modulus (Sxx)	0.0979 in <sup>3</sup>
Allowable Bending Moment (Ma)	161.21 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.3228 in
Moment of Inertia (Ixxg)	0.1624 in <sup>4</sup>
Section modulus (Sxxg)	0.1227 in <sup>3</sup>
Cross Sectional Area (Ag)	0.1556 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0216 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2324 in
Gross Moment of Inertia (Iyy)	0.0147 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3073 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.5293 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.5556 in
St. Venant torsion Constant (J x 1000)	0.0621 in <sup>4</sup>
Warping Constant (Cw)	0.0179 in <sup>6</sup>
Radii of Gyration (Ro)	1.2029 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7866

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **250T100-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.6614 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3978 in
Moment of Inertia for Deflection (Ixx)	0.2065 in <sup>4</sup>
Section Modulus (Sxx)	0.1388 in <sup>3</sup>
Allowable Bending Moment (Ma)	228.60 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3307 in
Moment of Inertia (Ixxg)	0.2118 in <sup>4</sup>
Section modulus (Sxxg)	0.1592 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2025 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0227 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2356 in
Gross Moment of Inertia (Iyy)	0.0189 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3053 in

**Other Section Property Data**

Member Weight per Foot of Length	0.6892 lb/ft
Allowable Shear Force In Web (Unpunched)	1355.54 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5510 in
St. Venant torsion Constant (J x 1000)	0.1373 in <sup>4</sup>
Warping Constant (Cw)	0.0231 in <sup>6</sup>
Radii of Gyration (Ro)	1.2011 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7896

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **250T100-54 (50 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.6981 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.4074 in
Moment of Inertia for Deflection (Ixx)	0.2646 in <sup>4</sup>
Section Modulus (Sxx)	0.1772 in <sup>3</sup>
Allowable Bending Moment (Ma)	442.09 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.3491 in
Moment of Inertia (Ixxg)	0.2689 in <sup>4</sup>
Section modules (Sxxg)	0.1993 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2540 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0290 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2391 in
Gross Moment of Inertia (Iyy)	0.0233 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3029 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.8643 lb/ft
Allowable Shear Force In Web (Unpunched)	2563.02 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.5452 in
St. Venant torsion Constant (J x 1000)	0.2712 in <sup>4</sup>
Warping Constant (Cw)	0.0292 in <sup>6</sup>
Radii of Gyration (Ro)	1.2032 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7947

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :**                    **250T125-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	2.6457 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.4924 in
Moment of Inertia for Deflection (Ixx)	0.1657 in <sup>4</sup>
Section Modulus (Sxx)	0.1029 in <sup>3</sup>
Allowable Bending Moment (Ma)	169.45 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.3228 in
Moment of Inertia (Ixxg)	0.1919 in <sup>4</sup>
Section modules (Sxxg)	0.1450 in <sup>3</sup>
Cross Sectional Area (Ag)	0.1729 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0535 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.3217 in
Gross Moment of Inertia (Iyy)	0.0272 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3966 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.5882 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.7599 in
St. Venant torsion Constant (J x 1000)	0.0690 in <sup>4</sup>
Warping Constant (Cw)	0.0328 in <sup>6</sup>
Radii of Gyration (Ro)	1.3582 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.6869

---

Location (1) and (6) are tip of compression and tension lip respectively  
 Location (2) and (5) are flange/lip corner of compression and tension side respectively  
 Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T125-43 (33 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	2.6614 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.4541 in
Moment of Inertia for Deflection (Ixx)	0.2310 in <sup>4</sup>
Section Modulus (Sxx)	0.1472 in <sup>3</sup>
Allowable Bending Moment (Ma)	242.41 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3307 in
Moment of Inertia (Ixxg)	0.2504 in <sup>4</sup>
Section modulus (Sxxg)	0.1882 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2251 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0548 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3247 in
Gross Moment of Inertia (Iyy)	0.0350 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3946 in

**Other Section Property Data**

Member Weight per Foot of Length	0.7659 lb/ft
Allowable Shear Force In Web (Unpunched)	1355.54 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.7550 in
St. Venant torsion Constant (J x 1000)	0.1526 in <sup>4</sup>
Warping Constant (Cw)	0.0425 in <sup>6</sup>
Radii of Gyration (Ro)	1.3558 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.6899

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **250T125-54 (50 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	2.6981 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.4634 in
Moment of Inertia for Deflection (Ixx)	0.2967 in <sup>4</sup>
Section Modulus (Sxx)	0.1884 in <sup>3</sup>
Allowable Bending Moment (Ma)	470.02 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.3491 in
Moment of Inertia (Ixxg)	0.3183 in <sup>4</sup>
Section modules (Sxxg)	0.2359 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2823 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0618 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.3279 in
Gross Moment of Inertia (Iyy)	0.0434 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3923 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.9606 lb/ft
Allowable Shear Force In Web (Unpunched)	2563.02 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.7486 in
St. Venant torsion Constant (J x 1000)	0.3015 in <sup>4</sup>
Warping Constant (Cw)	0.0539 in <sup>6</sup>
Radii of Gyration (Ro)	1.3571 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.6957

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T150-33 (33 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	2.6457 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.5485 in
Moment of Inertia for Deflection (Ixx)	0.1795 in <sup>4</sup>
Section Modulus (Sxx)	0.1068 in <sup>3</sup>
Allowable Bending Moment (Ma)	175.80 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3228 in
Moment of Inertia (Ixxg)	0.2213 in <sup>4</sup>
Section modulus (Sxxg)	0.1673 in <sup>3</sup>
Cross Sectional Area (Ag)	0.1902 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0789 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.4175 in
Gross Moment of Inertia (Iyy)	0.0447 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4849 in

**Other Section Property Data**

Member Weight per Foot of Length	0.6471 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.9734 in
St. Venant torsion Constant (J x 1000)	0.0759 in <sup>4</sup>
Warping Constant (Cw)	0.0538 in <sup>6</sup>
Radii of Gyration (Ro)	1.5318 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.5962

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 250T150-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	2.6614 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.5080 in
Moment of Inertia for Deflection (Ixx)	0.2522 in <sup>4</sup>
Section Modulus (Sxx)	0.1535 in <sup>3</sup>
Allowable Bending Moment (Ma)	252.83 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.3307 in
Moment of Inertia (Ixxg)	0.2890 in <sup>4</sup>
Section modules (Sxxg)	0.2172 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2476 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0803 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.4203 in
Gross Moment of Inertia (Iyy)	0.0578 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4830 in

**Other Section Property Data**

Member Weight per Foot of Length	0.8426 lb/ft
Allowable Shear Force In Web (Unpunched)	1355.54 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.9682 in
St. Venant torsion Constant (J x 1000)	0.1679 in <sup>4</sup>
Warping Constant (Cw)	0.0698 in <sup>6</sup>
Radii of Gyration (Ro)	1.5289 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.5990

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **250T150-54 (50 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	2.6981 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.5174 in
Moment of Inertia for Deflection (Ixx)	0.3245 in <sup>4</sup>
Section Modulus (Sxx)	0.1968 in <sup>3</sup>
Allowable Bending Moment (Ma)	490.95 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.3491 in
Moment of Inertia (Ixxg)	0.3677 in <sup>4</sup>
Section modulus (Sxxg)	0.2725 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3106 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.0880 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.4233 in
Gross Moment of Inertia (Iyy)	0.0718 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4808 in

**Other Section Property Data**


---

Member Weight per Foot of Length	1.0569 lb/ft
Allowable Shear Force In Web (Unpunched)	2563.02 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.9614 in
St. Venant torsion Constant (J x 1000)	0.3317 in <sup>4</sup>
Warping Constant (Cw)	0.0887 in <sup>6</sup>
Radii of Gyration (Ro)	1.5294 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.6048

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T100-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.7707 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0082 in
Moment of Inertia for Deflection (Ixx)	0.3517 in <sup>4</sup>
Section Modulus (Sxx)	0.1659 in <sup>3</sup>
Allowable Bending Moment (Ma)	273.15 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8853 in
Moment of Inertia (Ixxg)	0.3778 in <sup>4</sup>
Section modulus (Sxxg)	0.2004 in <sup>3</sup>
Cross Sectional Area (Ag)	0.1945 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.3937 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1893 in
Gross Moment of Inertia (Iyy)	0.0161 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2880 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.6618 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4728 in
St. Venant torsion Constant (J x 1000)	0.0776 in <sup>4</sup>
Warping Constant (Cw)	0.0413 in <sup>6</sup>
Radii of Gyration (Ro)	1.4996 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9006

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T100-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	3.7864 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.9691 in
Moment of Inertia for Deflection (Ixx)	0.4810 in <sup>4</sup>
Section Modulus (Sxx)	0.2318 in <sup>3</sup>
Allowable Bending Moment (Ma)	381.71 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8932 in
Moment of Inertia (Ixxg)	0.4924 in <sup>4</sup>
Section modulus (Sxxg)	0.2601 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2533 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.3944 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1929 in
Gross Moment of Inertia (Iyy)	0.0207 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2860 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.8618 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4687 in
St. Venant torsion Constant (J x 1000)	0.1717 in <sup>4</sup>
Warping Constant (Cw)	0.0533 in <sup>6</sup>
Radii of Gyration (Ro)	1.4986 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9022

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T100-54 (50 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.8231 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.9774 in
Moment of Inertia for Deflection (Ixx)	0.6126 in <sup>4</sup>
Section Modulus (Sxx)	0.2947 in <sup>3</sup>
Allowable Bending Moment (Ma)	735.36 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.9116 in
Moment of Inertia (Ixxg)	0.6222 in <sup>4</sup>
Section modulus (Sxxg)	0.3255 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3177 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.3995 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1968 in
Gross Moment of Inertia (Iyy)	0.0256 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2837 in

**Other Section Property Data**


---

Member Weight per Foot of Length	1.0810 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4637 in
St. Venant torsion Constant (J x 1000)	0.3392 in <sup>4</sup>
Warping Constant (Cw)	0.0668 in <sup>6</sup>
Radii of Gyration (Ro)	1.5014 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9046

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T125-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.7707 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0788 in
Moment of Inertia for Deflection (Ixx)	0.3845 in <sup>4</sup>
Section Modulus (Sxx)	0.1739 in <sup>3</sup>
Allowable Bending Moment (Ma)	286.44 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8853 in
Moment of Inertia (Ixxg)	0.4381 in <sup>4</sup>
Section modulus (Sxxg)	0.2324 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2118 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4383 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2658 in
Gross Moment of Inertia (Iyy)	0.0301 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3772 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.7207 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6580 in
St. Venant torsion Constant (J x 1000)	0.0845 in <sup>4</sup>
Warping Constant (Cw)	0.0756 in <sup>6</sup>
Radii of Gyration (Ro)	1.6260 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8363

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T125-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.7864 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0348 in
Moment of Inertia for Deflection (Ixx)	0.5308 in <sup>4</sup>
Section Modulus (Sxx)	0.2449 in <sup>3</sup>
Allowable Bending Moment (Ma)	403.25 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8932 in
Moment of Inertia (Ixxg)	0.5713 in <sup>4</sup>
Section modulus (Sxxg)	0.3018 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2758 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4392 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2691 in
Gross Moment of Inertia (Iyy)	0.0388 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3752 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.9386 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6535 in
St. Venant torsion Constant (J x 1000)	0.1870 in <sup>4</sup>
Warping Constant (Cw)	0.0978 in <sup>6</sup>
Radii of Gyration (Ro)	1.6246 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8382

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T125-54 (50 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.8231 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0425 in
Moment of Inertia for Deflection (Ixx)	0.6777 in <sup>4</sup>
Section Modulus (Sxx)	0.3120 in <sup>3</sup>
Allowable Bending Moment (Ma)	778.52 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.9116 in
Moment of Inertia (Ixxg)	0.7226 in <sup>4</sup>
Section modulus (Sxxg)	0.3780 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3460 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4452 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2728 in
Gross Moment of Inertia (Iyy)	0.0481 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3729 in

**Other Section Property Data**

Member Weight per Foot of Length	1.1773 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.6480 in
St. Venant torsion Constant (J x 1000)	0.3695 in <sup>4</sup>
Warping Constant (Cw)	0.1231 in <sup>6</sup>
Radii of Gyration (Ro)	1.6271 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8414

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 362T150-33 (33 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	3.7707 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.1457 in
Moment of Inertia for Deflection (Ixx)	0.4136 in <sup>4</sup>
Section Modulus (Sxx)	0.1804 in <sup>3</sup>
Allowable Bending Moment (Ma)	297.07 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.8853 in
Moment of Inertia (Ixxg)	0.4985 in <sup>4</sup>
Section modulus (Sxxg)	0.2644 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2291 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4752 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3495 in
Gross Moment of Inertia (Iyy)	0.0499 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4667 in

**Other Section Property Data**

Member Weight per Foot of Length	0.7795 lb/ft
Allowable Shear Force In Web (Unpunched)	1023.58 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.8543 in
St. Venant torsion Constant (J x 1000)	0.0914 in <sup>4</sup>
Warping Constant (Cw)	0.1238 in <sup>6</sup>
Radii of Gyration (Ro)	1.7674 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7664

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 362T150-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	3.7864 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0989 in
Moment of Inertia for Deflection (Ixx)	0.5744 in <sup>4</sup>
Section Modulus (Sxx)	0.2551 in <sup>3</sup>
Allowable Bending Moment (Ma)	420.05 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	1.8932 in
Moment of Inertia (Ixxg)	0.6502 in <sup>4</sup>
Section modulus (Sxxg)	0.3435 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2984 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4763 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.3527 in
Gross Moment of Inertia (Iyy)	0.0644 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4647 in

**Other Section Property Data**


---

Member Weight per Foot of Length	1.0153 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.8496 in
St. Venant torsion Constant (J x 1000)	0.2023 in <sup>4</sup>
Warping Constant (Cw)	0.1604 in <sup>6</sup>
Radii of Gyration (Ro)	1.7655 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7684

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **362T150-54 (50 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	3.8231 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.1066 in
Moment of Inertia for Deflection (Ixx)	0.7346 in <sup>4</sup>
Section Modulus (Sxx)	0.3254 in <sup>3</sup>
Allowable Bending Moment (Ma)	811.94 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	1.9116 in
Moment of Inertia (Ixxg)	0.8230 in <sup>4</sup>
Section modulus (Sxxg)	0.4305 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3743 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.4828 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3561 in
Gross Moment of Inertia (Iyy)	0.0800 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4624 in

**Other Section Property Data**

Member Weight per Foot of Length	1.2736 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.8436 in
St. Venant torsion Constant (J x 1000)	0.3997 in <sup>4</sup>
Warping Constant (Cw)	0.2023 in <sup>6</sup>
Radii of Gyration (Ro)	1.7676 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.7722

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T100-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.2602 in
Moment of Inertia for Deflection (Ixx)	0.4466 in <sup>4</sup>
Section Modulus (Sxx)	0.1810 in <sup>3</sup>
Allowable Bending Moment (Ma)	298.12 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0728 in
Moment of Inertia (Ixxg)	0.4757 in <sup>4</sup>
Section modulus (Sxxg)	0.2295 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2075 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5143 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1786 in
Gross Moment of Inertia (Iyy)	0.0165 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2819 in

**Other Section Property Data**


---

Member Weight per Foot of Length	0.7059 lb/ft
Allowable Shear Force In Web (Unpunched)	939.64 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4508 in
St. Venant torsion Constant (J x 1000)	0.0828 in <sup>4</sup>
Warping Constant (Cw)	0.0516 in <sup>6</sup>
Radii of Gyration (Ro)	1.6049 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9211

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T100-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	4.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.1588 in
Moment of Inertia for Deflection (Ixx)	0.6059 in <sup>4</sup>
Section Modulus (Sxx)	0.2671 in <sup>3</sup>
Allowable Bending Moment (Ma)	439.78 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0807 in
Moment of Inertia (Ixxg)	0.6200 in <sup>4</sup>
Section modules (Sxxg)	0.2980 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2702 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5148 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1822 in
Gross Moment of Inertia (Iyy)	0.0212 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2800 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.9194 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4469 in
St. Venant torsion Constant (J x 1000)	0.1832 in <sup>4</sup>
Warping Constant (Cw)	0.0665 in <sup>6</sup>
Radii of Gyration (Ro)	1.6040 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9224

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T100-54 (50 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.1668 in
Moment of Inertia for Deflection (Ixx)	0.7708 in <sup>4</sup>
Section Modulus (Sxx)	0.3393 in <sup>3</sup>
Allowable Bending Moment (Ma)	846.48 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0991 in
Moment of Inertia (Ixxg)	0.7827 in <sup>4</sup>
Section modulus (Sxxg)	0.3729 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3389 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5197 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.1863 in
Gross Moment of Inertia (Iyy)	0.0261 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2777 in

**Other Section Property Data**


---

Member Weight per Foot of Length	1.1532 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.4421 in
St. Venant torsion Constant (J x 1000)	0.3619 in <sup>4</sup>
Warping Constant (Cw)	0.0834 in <sup>6</sup>
Radii of Gyration (Ro)	1.6069 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9243

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T125-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.2722 in
Moment of Inertia for Deflection (Ixx)	0.4839 in <sup>4</sup>
Section Modulus (Sxx)	0.2010 in <sup>3</sup>
Allowable Bending Moment (Ma)	330.96 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0728 in
Moment of Inertia (Ixxg)	0.5488 in <sup>4</sup>
Section modulus (Sxxg)	0.2648 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2248 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5626 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2514 in
Gross Moment of Inertia (Iyy)	0.0309 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3707 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.7648 lb/ft
Allowable Shear Force In Web (Unpunched)	939.64 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6303 in
St. Venant torsion Constant (J x 1000)	0.0897 in <sup>4</sup>
Warping Constant (Cw)	0.0946 in <sup>6</sup>
Radii of Gyration (Ro)	1.7252 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8665

---

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 400T125-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.2268 in
Moment of Inertia for Deflection (Ixx)	0.6662 in <sup>4</sup>
Section Modulus (Sxx)	0.2818 in <sup>3</sup>
Allowable Bending Moment (Ma)	464.01 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	2.0807 in
Moment of Inertia (Ixxg)	0.7155 in <sup>4</sup>
Section modulus (Sxxg)	0.3439 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2927 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5634 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2549 in
Gross Moment of Inertia (Iyy)	0.0398 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3687 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.9961 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6260 in
St. Venant torsion Constant (J x 1000)	0.1985 in <sup>4</sup>
Warping Constant (Cw)	0.1222 in <sup>6</sup>
Radii of Gyration (Ro)	1.7240 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8681

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T125-54 (50 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.2341 in
Moment of Inertia for Deflection (Ixx)	0.8494 in <sup>4</sup>
Section Modulus (Sxx)	0.3587 in <sup>3</sup>
Allowable Bending Moment (Ma)	894.90 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0991 in
Moment of Inertia (Ixxg)	0.9040 in <sup>4</sup>
Section modules (Sxxg)	0.4307 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3672 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.5691 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2586 in
Gross Moment of Inertia (Iyy)	0.0493 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3664 in

**Other Section Property Data**

Member Weight per Foot of Length	1.2495 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.6207 in
St. Venant torsion Constant (J x 1000)	0.3921 in <sup>4</sup>
Warping Constant (Cw)	0.1536 in <sup>6</sup>
Radii of Gyration (Ro)	1.7267 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8708

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **400T150-33 (33 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	4.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.3420 in
Moment of Inertia for Deflection (Ixx)	0.5193 in <sup>4</sup>
Section Modulus (Sxx)	0.2084 in <sup>3</sup>
Allowable Bending Moment (Ma)	343.12 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0728 in
Moment of Inertia (Ixxg)	0.6219 in <sup>4</sup>
Section modules (Sxxg)	0.3000 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2421 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.6029 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3317 in
Gross Moment of Inertia (Iyy)	0.0513 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4601 in

**Other Section Property Data**

Member Weight per Foot of Length	0.8237 lb/ft
Allowable Shear Force In Web (Unpunched)	939.64 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.8215 in
St. Venant torsion Constant (J x 1000)	0.0966 in <sup>4</sup>
Warping Constant (Cw)	0.1547 in <sup>6</sup>
Radii of Gyration (Ro)	1.8590 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8047

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 400T150-43 (33 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	4.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.2937 in
Moment of Inertia for Deflection (Ixx)	0.7192 in <sup>4</sup>
Section Modulus (Sxx)	0.2933 in <sup>3</sup>
Allowable Bending Moment (Ma)	483.06 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0807 in
Moment of Inertia (Ixxg)	0.8110 in <sup>4</sup>
Section modules (Sxxg)	0.3898 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3153 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.6039 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3350 in
Gross Moment of Inertia (Iyy)	0.0662 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4582 in

**Other Section Property Data**

Member Weight per Foot of Length	1.0728 lb/ft
Allowable Shear Force In Web (Unpunched)	1739.09 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.8169 in
St. Venant torsion Constant (J x 1000)	0.2138 in <sup>4</sup>
Warping Constant (Cw)	0.2004 in <sup>6</sup>
Radii of Gyration (Ro)	1.8573 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8066

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 400T150-54 (50 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	4.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.3008 in
Moment of Inertia for Deflection (Ixx)	0.9183 in <sup>4</sup>
Section Modulus (Sxx)	0.3738 in <sup>3</sup>
Allowable Bending Moment (Ma)	932.71 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	2.0991 in
Moment of Inertia (Ixxg)	1.0254 in <sup>4</sup>
Section modules (Sxxg)	0.4885 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3955 in <sup>2</sup>
Radius of Gyration (Rxxg)	1.6102 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.3385 in
Gross Moment of Inertia (Iyy)	0.0822 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4559 in

**Other Section Property Data**

Member Weight per Foot of Length	1.3458 lb/ft
Allowable Shear Force In Web (Unpunched)	3371.56 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.8111 in
St. Venant torsion Constant (J x 1000)	0.4223 in <sup>4</sup>
Warping Constant (Cw)	0.2524 in <sup>6</sup>
Radii of Gyration (Ro)	1.8597 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.8098

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **600T100-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	6.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	3.5290 in
Moment of Inertia for Deflection (Ixx)	1.1704 in <sup>4</sup>
Section Modulus (Sxx)	0.2888 in <sup>3</sup>
Allowable Bending Moment (Ma)	475.51 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	3.0728 in
Moment of Inertia (Ixxg)	1.2667 in <sup>4</sup>
Section modulus (Sxxg)	0.4122 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2767 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.1397 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.1382 in
Gross Moment of Inertia (Iyy)	0.0178 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2539 in

**Other Section Property Data**


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Member Weight per Foot of Length	0.9414 lb/ft
Allowable Shear Force In Web (Unpunched)	622.38 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.3622 in
St. Venant torsion Constant (J x 1000)	0.1104 in <sup>4</sup>
Warping Constant (Cw)	0.1291 in <sup>6</sup>
Radii of Gyration (Ro)	2.1850 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9725

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **600T100-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	6.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	3.3187 in
Moment of Inertia for Deflection (Ixx)	1.6290 in <sup>4</sup>
Section Modulus (Sxx)	0.4442 in <sup>3</sup>
Allowable Bending Moment (Ma)	731.44 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	3.0807 in
Moment of Inertia (Ixxg)	1.6502 in <sup>4</sup>
Section modules (Sxxg)	0.5357 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3604 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.1399 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.1423 in
Gross Moment of Inertia (Iyy)	0.0229 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2521 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.2263 lb/ft
Allowable Shear Force In Web (Unpunched)	1377.13 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.3590 in
St. Venant torsion Constant (J x 1000)	0.2443 in <sup>4</sup>
Warping Constant (Cw)	0.1662 in <sup>6</sup>
Radii of Gyration (Ro)	2.1844 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9730

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>600T100-54 (50 ksi) Track (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.3085 in
Moment of Inertia for Deflection (Ixx)			2.0615 in <sup>4</sup>
Section Modulus (Sxx)			0.5693 in <sup>3</sup>
Allowable Bending Moment (Ma)			1420.48 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.0991 in
Moment of Inertia (Ixxg)			2.0773 in <sup>4</sup>
Section modulus (Sxxg)			0.6703 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4521 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.1435 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.1467 in
Gross Moment of Inertia (Iyy)			0.0283 in <sup>4</sup>
Radius of Gyration (Ryy)			0.2500 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.5384 lb/ft
Allowable Shear Force In Web (Unpunched)			2728.34 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.3550 in
St. Venant torsion Constant (J x 1000)			0.4828 in <sup>4</sup>
Warping Constant (Cw)			0.2072 in <sup>6</sup>
Radii of Gyration (Ro)			2.1871 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9736
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **600T125-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	6.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.6345 in
Moment of Inertia for Deflection (Ixx)	1.2576 in <sup>4</sup>
Section Modulus (Sxx)	0.2970 in <sup>3</sup>
Allowable Bending Moment (Ma)	489.04 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.0728 in
Moment of Inertia (Ixxg)	1.4282 in <sup>4</sup>
Section modules (Sxxg)	0.4648 in <sup>3</sup>
Cross Sectional Area (Ag)	0.2940 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2042 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.1963 in
Gross Moment of Inertia (Iyy)	0.0338 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3390 in

**Other Section Property Data**

Member Weight per Foot of Length	1.0003 lb/ft
Allowable Shear Force In Web (Unpunched)	622.38 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5165 in
St. Venant torsion Constant (J x 1000)	0.1173 in <sup>4</sup>
Warping Constant (Cw)	0.2377 in <sup>6</sup>
Radii of Gyration (Ro)	2.2891 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9491

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 600T125-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	6.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.4121 in
Moment of Inertia for Deflection (Ixx)	1.7680 in <sup>4</sup>
Section Modulus (Sxx)	0.4612 in <sup>3</sup>
Allowable Bending Moment (Ma)	759.40 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	3.0807 in
Moment of Inertia (Ixxg)	1.8611 in <sup>4</sup>
Section modules (Sxxg)	0.6041 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3829 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2046 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2001 in
Gross Moment of Inertia (Iyy)	0.0435 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3371 in

**Other Section Property Data**

Member Weight per Foot of Length	1.3030 lb/ft
Allowable Shear Force In Web (Unpunched)	1377.13 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5129 in
St. Venant torsion Constant (J x 1000)	0.2596 in <sup>4</sup>
Warping Constant (Cw)	0.3069 in <sup>6</sup>
Radii of Gyration (Ro)	2.2884 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9498

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>600T125-54 (50 ksi) Track (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.4000 in
Moment of Inertia for Deflection (Ixx)			2.2409 in <sup>4</sup>
Section Modulus (Sxx)			0.5923 in <sup>3</sup>
Allowable Bending Moment (Ma)			1477.90 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.0991 in
Moment of Inertia (Ixxg)			2.3442 in <sup>4</sup>
Section modules (Sxxg)			0.7564 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4804 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.2090 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.2044 in
Gross Moment of Inertia (Iyy)			0.0539 in <sup>4</sup>
Radius of Gyration (Ryy)			0.3349 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.6347 lb/ft
Allowable Shear Force In Web (Unpunched)			2728.34 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.5084 in
St. Venant torsion Constant (J x 1000)			0.5130 in <sup>4</sup>
Warping Constant (Cw)			0.3840 in <sup>6</sup>
Radii of Gyration (Ro)			2.2913 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9508
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 600T150-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	6.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	3.7371 in
Moment of Inertia for Deflection (Ixx)	1.3343 in <sup>4</sup>
Section Modulus (Sxx)	0.3029 in <sup>3</sup>
Allowable Bending Moment (Ma)	498.79 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	3.0728 in
Moment of Inertia (Ixxg)	1.5897 in <sup>4</sup>
Section modulus (Sxxg)	0.5173 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3113 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2599 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2618 in
Gross Moment of Inertia (Iyy)	0.0566 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4263 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.0592 lb/ft
Allowable Shear Force In Web (Unpunched)	622.38 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6840 in
St. Venant torsion Constant (J x 1000)	0.1242 in <sup>4</sup>
Warping Constant (Cw)	0.3899 in <sup>6</sup>
Radii of Gyration (Ro)	2.3993 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9187

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **600T150-43 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	6.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	3.5062 in
Moment of Inertia for Deflection (Ixx)	1.8897 in <sup>4</sup>
Section Modulus (Sxx)	0.4736 in <sup>3</sup>
Allowable Bending Moment (Ma)	779.85 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	3.0807 in
Moment of Inertia (Ixxg)	2.0720 in <sup>4</sup>
Section modulus (Sxxg)	0.6726 in <sup>3</sup>
Cross Sectional Area (Ag)	0.4055 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.2605 in

**Section Properties, Weak Axis**


---

Gross Neutral Axis (Xcg) From Web Face	0.2655 in
Gross Moment of Inertia (Iyy)	0.0730 in <sup>4</sup>
Radius of Gyration (Ryy)	0.4244 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.3798 lb/ft
Allowable Shear Force In Web (Unpunched)	1377.13 lb

**Torsional Properties**


---

Dist. from Shear Center to Neutral Axis (Xo)	-0.6801 in
St. Venant torsion Constant (J x 1000)	0.2749 in <sup>4</sup>
Warping Constant (Cw)	0.5044 in <sup>6</sup>
Radii of Gyration (Ro)	2.3984 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9196

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>600T150-54 (50 ksi) Track (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	6.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.4931 in
Moment of Inertia for Deflection (Ixx)			2.4004 in <sup>4</sup>
Section Modulus (Sxx)			0.6091 in <sup>3</sup>
Allowable Bending Moment (Ma)			1519.75 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			3.0991 in
Moment of Inertia (Ixxg)			2.6110 in <sup>4</sup>
Section modulus (Sxxg)			0.8425 in <sup>3</sup>
Cross Sectional Area (Ag)			0.5087 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.2655 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.2695 in
Gross Moment of Inertia (Iyy)			0.0907 in <sup>4</sup>
Radius of Gyration (Ryy)			0.4222 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.7310 lb/ft
Allowable Shear Force In Web (Unpunched)			2728.34 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.6752 in
St. Venant torsion Constant (J x 1000)			0.5432 in <sup>4</sup>
Warping Constant (Cw)			0.6325 in <sup>6</sup>
Radii of Gyration (Ro)			2.4014 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9209
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **800T100-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	8.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	4.8979 in
Moment of Inertia for Deflection (Ixx)	2.2947 in <sup>4</sup>
Section Modulus (Sxx)	0.3965 in <sup>3</sup>
Allowable Bending Moment (Ma)	652.99 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


---

Neutral Axis from Top Fiber (Ycg)	4.0728 in
Moment of Inertia (Ixxg)	2.6109 in <sup>4</sup>
Section modules (Sxxg)	0.6411 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3459 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.7475 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.1140 in
Gross Moment of Inertia (Iyy)	0.0186 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2322 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.1769 lb/ft
Allowable Shear Force In Web (Unpunched)	465.29 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.3036 in
St. Venant torsion Constant (J x 1000)	0.1380 in <sup>4</sup>
Warping Constant (Cw)	0.2464 in <sup>6</sup>
Radii of Gyration (Ro)	2.7740 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9880

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

**\*\*\* WEB DEPTH-TO-THICKNESS = 229 > 200 \*\*\***

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>800T100-43 (33 ksi) Track (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.6030 in
Moment of Inertia for Deflection (Ixx)			3.2470 in <sup>4</sup>
Section Modulus (Sxx)			0.6196 in <sup>3</sup>
Allowable Bending Moment (Ma)			1020.37 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.0807 in
Moment of Inertia (Ixxg)			3.4012 in <sup>4</sup>
Section modulus (Sxxg)			0.8335 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4506 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.7474 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.1183 in
Gross Moment of Inertia (Iyy)			0.0239 in <sup>4</sup>
Radius of Gyration (Ryy)			0.2305 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.5332 lb/ft
Allowable Shear Force In Web (Unpunched)			1029.75 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.3008 in
St. Venant torsion Constant (J x 1000)			0.3055 in <sup>4</sup>
Warping Constant (Cw)			0.3169 in <sup>6</sup>
Radii of Gyration (Ro)			2.7734 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9882
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 800T100-54 (50 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	8.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.0000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.0000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.5819 in
Moment of Inertia for Deflection (Ixx)	4.1183 in <sup>4</sup>
Section Modulus (Sxx)	0.7958 in <sup>3</sup>
Allowable Bending Moment (Ma)	1985.43 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.0991 in
Moment of Inertia (Ixxg)	4.2761 in <sup>4</sup>
Section modulus (Sxxg)	1.0432 in <sup>3</sup>
Cross Sectional Area (Ag)	0.5653 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.7503 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.1230 in
Gross Moment of Inertia (Iyy)	0.0295 in <sup>4</sup>
Radius of Gyration (Ryy)	0.2285 in

**Other Section Property Data**

Member Weight per Foot of Length	1.9236 lb/ft
Allowable Shear Force In Web (Unpunched)	2038.94 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.2975 in
St. Venant torsion Constant (J x 1000)	0.6037 in <sup>4</sup>
Warping Constant (Cw)	0.3941 in <sup>6</sup>
Radii of Gyration (Ro)	2.7758 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9885

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **800T125-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**

Web Height =	8.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	5.0151 in
Moment of Inertia for Deflection (Ixx)	2.4412 in <sup>4</sup>
Section Modulus (Sxx)	0.4066 in <sup>3</sup>
Allowable Bending Moment (Ma)	669.49 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.0728 in
Moment of Inertia (Ixxg)	2.8955 in <sup>4</sup>
Section modulus (Sxxg)	0.7109 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3632 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.8236 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.1622 in
Gross Moment of Inertia (Iyy)	0.0356 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3130 in

**Other Section Property Data**

Member Weight per Foot of Length	1.2358 lb/ft
Allowable Shear Force In Web (Unpunched)	465.29 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.4389 in
St. Venant torsion Constant (J x 1000)	0.1449 in <sup>4</sup>
Warping Constant (Cw)	0.4564 in <sup>6</sup>
Radii of Gyration (Ro)	2.8746 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9767

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

**\*\*\* WEB DEPTH-TO-THICKNESS = 229 > 200 \*\*\***

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>800T125-43 (33 ksi) Track (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.7076 in
Moment of Inertia for Deflection (Ixx)			3.4838 in <sup>4</sup>
Section Modulus (Sxx)			0.6403 in <sup>3</sup>
Allowable Bending Moment (Ma)			1054.33 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.0807 in
Moment of Inertia (Ixxg)			3.7725 in <sup>4</sup>
Section modules (Sxxg)			0.9245 in <sup>3</sup>
Cross Sectional Area (Ag)			0.4731 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.8237 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.1663 in
Gross Moment of Inertia (Iyy)			0.0458 in <sup>4</sup>
Radius of Gyration (Ryy)			0.3112 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			1.6100 lb/ft
Allowable Shear Force In Web (Unpunched)			1029.75 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.4357 in
St. Venant torsion Constant (J x 1000)			0.3208 in <sup>4</sup>
Warping Constant (Cw)			0.5890 in <sup>6</sup>
Radii of Gyration (Ro)			2.8741 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9770
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

<b>Product Name :</b>		<b>800T125-54 (50 ksi) Track (G90)</b>	
<b>PHYSICAL PROPERTIES :</b>			
Web Height =	8.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.2500 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.2500 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		
<b>Effective Section Properties, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.6844 in
Moment of Inertia for Deflection (Ixx)			4.4257 in <sup>4</sup>
Section Modulus (Sxx)			0.8237 in <sup>3</sup>
Allowable Bending Moment (Ma)			2055.18 ft-lb
<b>Gross Section Properties of Full Section, Strong Axis</b>			
Neutral Axis from Top Fiber (Ycg)			4.0991 in
Moment of Inertia (Ixxg)			4.7451 in <sup>4</sup>
Section modulus (Sxxg)			1.1576 in <sup>3</sup>
Cross Sectional Area (Ag)			0.5936 in <sup>2</sup>
Radius of Gyration (Rxxg)			2.8273 in
<b>Section Properties, Weak Axis</b>			
Gross Neutral Axis (Xcg) From Web Face			0.1708 in
Gross Moment of Inertia (Iyy)			0.0567 in <sup>4</sup>
Radius of Gyration (Ryy)			0.3091 in
<b>Other Section Property Data</b>			
Member Weight per Foot of Length			2.0199 lb/ft
Allowable Shear Force In Web (Unpunched)			2038.94 lb
<b>Torsional Properties</b>			
Dist. from Shear Center to Neutral Axis (Xo)			-0.4319 in
St. Venant torsion Constant (J x 1000)			0.6339 in <sup>4</sup>
Warping Constant (Cw)			0.7350 in <sup>6</sup>
Radii of Gyration (Ro)			2.8768 in <sup>6</sup>
Torsional Flexural Constant (Beta)			0.9775
Location (1) and (6) are tip of compression and tension lip respectively			
Location (2) and (5) are flange/lip corner of compression and tension side respectively			
Location (3) and (4) are flange/web corner of compression and tension side respectively			

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name :** **800T150-33 (33 ksi) Track (G90)**


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**PHYSICAL PROPERTIES :**


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Web Height =	8.1457 in	Steel Thickness =	0.0346 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0765 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	5.1308 in
Moment of Inertia for Deflection (Ixx)	2.5688 in <sup>4</sup>
Section Modulus (Sxx)	0.4138 in <sup>3</sup>
Allowable Bending Moment (Ma)	681.40 ft-lb

**Gross Section Properties of Full Section, Strong Axis**


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Neutral Axis from Top Fiber (Ycg)	4.0728 in
Moment of Inertia (Ixxg)	3.1800 in <sup>4</sup>
Section modulus (Sxxg)	0.7808 in <sup>3</sup>
Cross Sectional Area (Ag)	0.3805 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.8911 in

**Section Properties, Weak Axis**


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Gross Neutral Axis (Xcg) From Web Face	0.2173 in
Gross Moment of Inertia (Iyy)	0.0600 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3970 in

**Other Section Property Data**


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Member Weight per Foot of Length	1.2946 lb/ft
Allowable Shear Force In Web (Unpunched)	465.29 lb

**Torsional Properties**


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Dist. from Shear Center to Neutral Axis (Xo)	-0.5878 in
St. Venant torsion Constant (J x 1000)	0.1518 in <sup>4</sup>
Warping Constant (Cw)	0.7515 in <sup>6</sup>
Radii of Gyration (Ro)	2.9768 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9610

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Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

**\*\*\* WEB DEPTH-TO-THICKNESS = 229 > 200 \*\*\***

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 800T150-43 (33 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	8.1614 in	Steel Thickness =	0.0451 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0712 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	33.0000 ksi
Fy With Cold-Work, Fya =	33.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.8147 in
Moment of Inertia for Deflection (Ixx)	3.6892 in <sup>4</sup>
Section Modulus (Sxx)	0.6552 in <sup>3</sup>
Allowable Bending Moment (Ma)	1078.94 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.0807 in
Moment of Inertia (Ixxg)	4.1439 in <sup>4</sup>
Section modulus (Sxxg)	1.0155 in <sup>3</sup>
Cross Sectional Area (Ag)	0.4957 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.8914 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2213 in
Gross Moment of Inertia (Iyy)	0.0774 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3951 in

**Other Section Property Data**

Member Weight per Foot of Length	1.6867 lb/ft
Allowable Shear Force In Web (Unpunched)	1029.75 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5844 in
St. Venant torsion Constant (J x 1000)	0.3361 in <sup>4</sup>
Warping Constant (Cw)	0.9717 in <sup>6</sup>
Radii of Gyration (Ro)	2.9762 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9614

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming

## PRODUCT SUBMITTAL DATA

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**Product Name : 800T150-54 (50 ksi) Track (G90)**
**PHYSICAL PROPERTIES :**

Web Height =	8.1981 in	Steel Thickness =	0.0566 in
Top Flange =	1.5000 in	Inside Corner Radius =	0.0849 in
Bottom Flange =	1.5000 in	Yield Stress, Fy =	50.0000 ksi
Fy With Cold-Work, Fya =	50.0000 ksi		

**Effective Section Properties, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.7904 in
Moment of Inertia for Deflection (Ixx)	4.6923 in <sup>4</sup>
Section Modulus (Sxx)	0.8439 in <sup>3</sup>
Allowable Bending Moment (Ma)	2105.47 ft-lb

**Gross Section Properties of Full Section, Strong Axis**

Neutral Axis from Top Fiber (Ycg)	4.0991 in
Moment of Inertia (Ixxg)	5.2140 in <sup>4</sup>
Section modules (Sxxg)	1.2720 in <sup>3</sup>
Cross Sectional Area (Ag)	0.6219 in <sup>2</sup>
Radius of Gyration (Rxxg)	2.8955 in

**Section Properties, Weak Axis**

Gross Neutral Axis (Xcg) From Web Face	0.2256 in
Gross Moment of Inertia (Iyy)	0.0961 in <sup>4</sup>
Radius of Gyration (Ryy)	0.3930 in

**Other Section Property Data**

Member Weight per Foot of Length	2.1162 lb/ft
Allowable Shear Force In Web (Unpunched)	2038.94 lb

**Torsional Properties**

Dist. from Shear Center to Neutral Axis (Xo)	-0.5801 in
St. Venant torsion Constant (J x 1000)	0.6641 in <sup>4</sup>
Warping Constant (Cw)	1.2154 in <sup>6</sup>
Radii of Gyration (Ro)	2.9791 in <sup>6</sup>
Torsional Flexural Constant (Beta)	0.9621

Location (1) and (6) are tip of compression and tension lip respectively

Location (2) and (5) are flange/lip corner of compression and tension side respectively

Location (3) and (4) are flange/web corner of compression and tension side respectively

- Properties based upon the AISI S100-16 - North American Specification for the Design of CFS Structural Members incl. Supplement 1 (S100-16/S1-18)
- Effective properties include the strength increase from cold forming