



BEAM Available Steel Grades								
AMERICAN			CANADIAN			EUROPEAN*		
ASTM	YIELD STRENGTH		CSA G40.21	YIELD STRENGTH		EN 10025 & EN 10113	YIELD STRENGTH	
	(ksi)	(MPa)		(ksi)	(MPa)		(ksi)	(MPa)
A 36	36	250	Grade 350 W	50	350	S 235	34	235
A 572 Grade 50	50	345				S 275	40	275
A 588	50	345				S 355	51	355
A 709	50	345				S 460 HISTAR	67	460
A 913	50	345						
A 913	65	450						
A 992	50	345						

\*HISTAR only available in some sizes.

## Delivery Conditions & Tolerances

ASTM A 6	
Mass	± 2.5%
Depth	± 0.125 inches
Length	30 feet and Under <span style="margin-left: 150px;">Over 30 Feet</span>
Beams W 24 and Under	± 0.375 inches <span style="margin-left: 150px;">+ ( 0.375 inches + (Length - 30) / 80</span> <span style="margin-left: 20px;">-0.375 inches</span>
Beams Over W 24	± 0.5 inches <span style="margin-left: 150px;">+ ( 0.5 inches + (Length - 30) / 80</span> <span style="margin-left: 20px;">-0.375 inches</span>
Flanges out of Square	
Beams W 12 and Under	≤ 0.25 inches
Beams Over W 12	≤ 0.3125 inches
Web off Center	≤ 0.1875 inches
Greatest Depth over Theoretical	≤ 0.25 inches
Camber and Sweep	(0.125 in) * (Length / 10)
Camber and Sweep for Columns	
45 Feet and Under	(0.125 in) * (Length / 10) but not over 0.375 inches
Over 45 Feet	(0.375 in) + (0.125 in * (Length - 45) / 10)

\*W 8 x 31 and heavier, W 10 x 49 and heavier, W 12 x 65 and heavier, and W 14 x 90 and heavier order as columns. If other sections are ordered as columns, the tolerances are subject to negotiation with manufacturer.

# Structural Shapes

CHANNEL Available Steel Grades								
AMERICAN			CANADIAN			EUROPEAN		
ASTM	YIELD STRENGTH		CSA G40.21	YIELD STRENGTH		EN 10248	YIELD STRENGTH	
	(ksi)	(MPa)		(ksi)	(MPa)		(ksi)	(MPa)
A 36	36	250	Grade 350 W	50	350	S 235 GP	34	235
A 572 Grade 50	50	345				S 355 GP	51	355
A 572 Grade 60	60	415						
A 588	50	345						
A 242	50	345						

## Delivery Conditions & Tolerances

Mass	± 2.5%						
Depth	<b>3 to 7 in</b>		<b>7 to 14 in</b>		<b>Over 14 in</b>		
	+ 0.9375 in	- 0.0625 in	+ 0.125 in	- 0.9375 in	+ 0.1875 in	- 0.125	
Length	<b>5 to 10 ft</b>	<b>10 to 20 ft</b>	<b>20 to 30 ft</b>	<b>30 to 40 ft</b>	<b>40 to 50 ft</b>	<b>50 to 65 ft</b>	
	+ 1.0 in	+ 1.5 in	+ 1.75 in	+ 2.25 in	+ 2.75 in	+ 2.75 in	
Flange Width	<b>3 to 7 in</b>		<b>7 to 14 in</b>		<b>Over 14 in</b>		
	± 0.125 in		+ 0.125 in	- 0.9375 in	+ 0.125 in	- 0.1875	
Flanges out of Square	≤ 0.03125 in						
Camber	(0.125 in) * (Length / 5)						
Sweep	Subject to negotiation with manufacturer						

ANGLE Available Steel Grades								
AMERICAN			CANADIAN			EUROPEAN		
ASTM	YIELD STRENGTH		CSA G40.21	YIELD STRENGTH		EN 10248	YIELD STRENGTH	
	(ksi)	(MPa)		(ksi)	(MPa)		(ksi)	(MPa)
A 36	36	250	Grade 350 W	50	350	S 235	34	235
A 572 Grade 50	50	345				S 355	51	355
A 572 Grade 60	60	415						
A 588	50	345						
A 242	50	345						

## Delivery Conditions & Tolerances

Mass	± 2.5%						
Length	<b>5 to 10 ft</b>	<b>10 to 20 ft</b>	<b>20 to 30 ft</b>	<b>30 to 40 ft</b>	<b>40 to 50 ft</b>	<b>50 to 65 ft</b>	
	+ 1.0 in	+ 1.5 in	+ 1.75 in	+ 2.25 in	+ 2.75 in	+ 2.75 in	
Leg Length	<b>1 to 2 in</b>	<b>2 to 3 in</b>	<b>3 to 4 in</b>		<b>4 to 6 in</b>	<b>Over 6 in</b>	
	± 0.046875 in	± 0.0625 in	+ 0.125 in	- 0.09375 in	± 0.125 in	+ 0.1875 in - 0.125 in	
Flanges out of Square	± 1.5 degrees						
Thickness	<b>≤ 0.1875 in</b>	<b>0.1875 in to 0.375 in</b>		<b>Over 0.375 in</b>			
1 to 2 in.	± 0.010 in	± 0.010 in		± 0.012 in.			
2 to 3 in.	± 0.012 in	± 0.015 in		± 0.015 in.			
Camber	(0.125 in) * (Length / 5)						
Sweep	Subject to negotiation with manufacturer						

\* Longer leg length determines classification.

## Maximum Rolled Lengths\*

All Sections	60 feet
Most Sections	85 feet
Some Sections	120 feet

\* Longer lengths may be possible upon request.