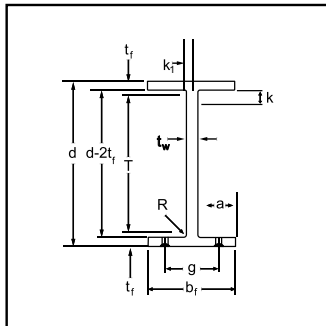


WIDE FLANGE BEAMS

STOCK LENGTHS: 20',30',40',60' ASTM A-36



Decimal dimensions for d , b_f , t_f , and t_w , are in accordance with those listed in ASTM A6-77b. The AISC criteria that governs the method for determining the Approximate Dimensions for Detailing, as listed herein, is as follows:

d , depth of section, rounded to the nearest $\frac{1}{8}$

b_f , width of flange, rounded to the nearest $\frac{1}{8}$

t_f , t_w flange and web thicknesses, rounded to the nearest $\frac{1}{16}$

$t_w/2$, one-half the fractional value of the web thickness, rounded up to the nearest $\frac{1}{16}$

$d-2t_f$, decimal value of the clear distance between flanges, rounded to the nearest $\frac{1}{16}$

a , projection of the flange beyond the face of the web, = $\frac{1}{2}$ (decimal flange width minus decimal web thickness), rounded to the nearest $\frac{1}{8}$

T , clear distance on web between fillets* = (decimal depth of shape minus ASTM A6 maximum allowable under tolerance) minus 2 (decimal flange thickness plus decimal fillet radius*), rounded

k , distance from the outside of the flange to the toe of the fillet* on the web, = $\frac{1}{2}$ (fractional depth of shape minus fractional value of T), automatically rounded up to the nearest $\frac{1}{16}$ because of the rounding of d and T

k_1 , distance from the center of the web to the toe of the fillet* on the flange, = ($\frac{1}{2}$ decimal web thickness plus decimal fillet radius*), rounded up to the nearest $\frac{1}{16}$

*The fillet radius used in calculating the detailing clearance dimensions T , k and k_1 is the largest theoretical radius used for the given section by any U.S. producer, based on a 1977 AISI survey.

The rounding off of decimal dimensions to fractions can lead to an accumulation of differences when these fractions are added. For example, the fractional value of $d-2t_f$ plus two times the fractional value of t_f , may not equal the fractional value of d . Similarly, the fractional values $2a + t_w$, may not equal b_f , nor may 2 ($t_w/2$) equal t_w .

Designation	Weight per Foot	Depth of Section d	Flange		Web Thickness t_w	Half Web Thickness $\frac{t_w}{2}$	$d-2t_f$	a	T	k	k_1	R	Usual Flange Gage g
			Width b_f	Thick-ness t_f									
			in.	in.									
W4 X	13	4 $\frac{1}{8}$	4	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{8}$	3 $\frac{1}{2}$	1 $\frac{7}{8}$	2 $\frac{3}{4}$	1 $\frac{1}{16}$	$\frac{7}{16}$	0.25	2 $\frac{1}{4}$
W5 X	16	5	5	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{8}$	4 $\frac{5}{16}$	2 $\frac{3}{8}$	3 $\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{16}$	0.30	2 $\frac{3}{4}$
W5 X	19	5 $\frac{1}{8}$	5	$\frac{7}{16}$	$\frac{1}{4}$	$\frac{1}{8}$	4 $\frac{5}{16}$	2 $\frac{3}{8}$	3 $\frac{1}{2}$	1 $\frac{3}{16}$	$\frac{7}{16}$	0.30	2 $\frac{3}{4}$
W6 X	9	5 $\frac{1}{8}$	4	$\frac{3}{16}$	$\frac{3}{16}$	$\frac{1}{8}$	5 $\frac{1}{2}$	1 $\frac{7}{8}$	4 $\frac{3}{4}$	$\frac{9}{16}$	$\frac{3}{8}$	0.25	2 $\frac{1}{4}$
W6 X	12	6	4	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	5 $\frac{1}{2}$	1 $\frac{7}{8}$	4 $\frac{3}{4}$	$\frac{5}{8}$	$\frac{3}{8}$	0.25	2 $\frac{1}{4}$
W6 X	16	6 $\frac{1}{4}$	4	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{8}$	5 $\frac{1}{2}$	1 $\frac{7}{8}$	4 $\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{16}$	0.25	2 $\frac{1}{4}$
W6 X	15	6	6	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	5 $\frac{1}{2}$	2 $\frac{7}{8}$	4 $\frac{3}{4}$	$\frac{5}{8}$	$\frac{3}{8}$	0.25	3 $\frac{1}{2}$
W6 X	20	6 $\frac{1}{4}$	6	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{8}$	5 $\frac{1}{2}$	2 $\frac{7}{8}$	4 $\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{16}$	0.25	3 $\frac{1}{2}$
W6 X	25	6 $\frac{3}{8}$	6 $\frac{1}{8}$	$\frac{7}{16}$	$\frac{5}{16}$	$\frac{3}{16}$	5 $\frac{1}{2}$	2 $\frac{7}{8}$	4 $\frac{3}{4}$	1 $\frac{3}{16}$	$\frac{7}{16}$	0.25	3 $\frac{1}{2}$
W8 X	10	7 $\frac{1}{8}$	4	$\frac{3}{16}$	$\frac{3}{16}$	$\frac{1}{8}$	7 $\frac{1}{2}$	1 $\frac{7}{8}$	6 $\frac{5}{8}$	$\frac{5}{8}$	$\frac{7}{16}$	0.30	2 $\frac{1}{4}$
W8 X	13	8	4	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	7 $\frac{1}{2}$	1 $\frac{7}{8}$	6 $\frac{5}{8}$	1 $\frac{1}{16}$	$\frac{7}{16}$	0.30	2 $\frac{1}{4}$
W8 X	15	8 $\frac{1}{8}$	4	$\frac{5}{16}$	$\frac{1}{4}$	$\frac{1}{8}$	7 $\frac{1}{2}$	1 $\frac{7}{8}$	6 $\frac{5}{8}$	$\frac{3}{4}$	$\frac{1}{2}$	0.30	2 $\frac{1}{4}$
W8 X	18	8 $\frac{1}{8}$	5 $\frac{1}{4}$	$\frac{5}{16}$	$\frac{1}{4}$	$\frac{1}{8}$	7 $\frac{1}{2}$	2 $\frac{1}{2}$	6 $\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{16}$	0.30	2 $\frac{3}{4}$
W8 X	21	8 $\frac{1}{4}$	5 $\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{8}$	7 $\frac{1}{2}$	2 $\frac{1}{2}$	6 $\frac{5}{8}$	1 $\frac{3}{16}$	$\frac{1}{2}$	0.30	2 $\frac{3}{4}$

WIDE FLANGE BEAMS

STOCK LENGTHS: 20',30',40',60' ASTM A-36

Designation	Weight per Foot	Depth of Section d	Flange		Web Thickness t _w	Half Web Thickness $\frac{t_w}{2}$	d-2t _f	a	T	k	k ₁	R	Usual Flange Gage g
			Width	Thick-ness									
			b _f	t _f									
lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
W8 X	24	7 ⁷ / ₈	6 ¹ / ₂	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₈	7 ¹ / ₈	3 ¹ / ₈	6 ¹ / ₈	7 ⁷ / ₈	9 ⁹ / ₁₆	0.40	3 ¹ / ₂
W8 X	28	8	6 ¹ / ₂	7 ⁷ / ₁₆	5 ⁵ / ₁₆	3 ³ / ₁₆	7 ¹ / ₈	3 ¹ / ₈	6 ¹ / ₈	15 ¹⁵ / ₁₆	9 ⁹ / ₁₆	0.40	3 ¹ / ₂
W8 X	31	8	8	7 ⁷ / ₁₆	5 ⁵ / ₁₆	3 ³ / ₁₆	7 ¹ / ₈	3 ⁷ / ₈	6 ¹ / ₈	15 ¹⁵ / ₁₆	9 ⁹ / ₁₆	0.40	5 ¹ / ₂
W8 X	35	8 ¹ / ₈	8	1 ¹ / ₂	5 ⁵ / ₁₆	3 ³ / ₁₆	7 ¹ / ₈	3 ⁷ / ₈	6 ¹ / ₈	1	9 ⁹ / ₁₆	0.40	5 ¹ / ₂
W8 X	40	8 ¹ / ₄	8 ¹ / ₈	9 ⁹ / ₁₆	3 ³ / ₈	3 ³ / ₁₆	7 ¹ / ₈	3 ⁷ / ₈	6 ¹ / ₈	1 ¹ / ₁₆	5 ⁵ / ₈	0.40	5 ¹ / ₂
W8 X	48	8 ¹ / ₂	8 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₈	3 ³ / ₁₆	7 ¹ / ₈	3 ⁷ / ₈	6 ¹ / ₈	1 ³ / ₁₆	5 ⁵ / ₈	0.40	5 ¹ / ₂
W8 X	58	8 ³ / ₄	8 ¹ / ₄	1 ³ / ₁₆	1 ¹ / ₂	1 ¹ / ₄	7 ¹ / ₈	3 ⁷ / ₈	6 ¹ / ₈	15 ¹⁵ / ₁₆	1 ¹ / ₁₆	0.40	5 ¹ / ₂
W8 X	67	9	8 ¹ / ₄	15 ¹⁵ / ₁₆	9 ⁹ / ₁₆	5 ⁵ / ₁₆	7 ¹ / ₈	3 ⁷ / ₈	6 ¹ / ₈	17 ¹⁷ / ₁₆	1 ¹ / ₁₆	0.40	5 ¹ / ₂
W10 X	12	9 ⁷ / ₈	4	3 ³ / ₁₆	3 ³ / ₁₆	1 ¹ / ₈	9 ⁷ / ₁₆	1 ⁷ / ₈	8 ⁵ / ₈	5 ⁵ / ₈	7 ⁷ / ₁₆	0.30	2 ¹ / ₄
W10 X	15	10	4	1 ¹ / ₄	1 ¹ / ₄	1 ¹ / ₈	9 ⁷ / ₁₆	1 ⁷ / ₈	8 ⁵ / ₈	1 ¹ / ₁₆	7 ⁷ / ₁₆	0.30	2 ¹ / ₄
W10 X	17	10 ¹ / ₈	4	5 ⁵ / ₁₆	1 ¹ / ₄	1 ¹ / ₈	9 ⁷ / ₁₆	1 ⁷ / ₈	8 ⁵ / ₈	3 ³ / ₄	1 ¹ / ₂	0.30	2 ¹ / ₄
W10 X	19	10 ¹ / ₄	4	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₈	9 ⁷ / ₁₆	1 ⁷ / ₈	8 ⁵ / ₈	13 ¹³ / ₁₆	1 ¹ / ₂	0.30	2 ¹ / ₄
W10 X	22	10 ¹ / ₈	5 ³ / ₄	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₈	9 ⁷ / ₁₆	2 ³ / ₄	8 ⁵ / ₈	3 ³ / ₄	1 ¹ / ₂	0.30	2 ³ / ₄
W10 X	26	10 ³ / ₈	5 ³ / ₄	7 ⁷ / ₁₆	1 ¹ / ₄	1 ¹ / ₈	9 ⁷ / ₁₆	2 ³ / ₄	8 ⁵ / ₈	7 ⁷ / ₈	1 ¹ / ₂	0.30	2 ³ / ₄
W10 X	30	10 ¹ / ₂	5 ³ / ₄	1 ¹ / ₂	5 ⁵ / ₁₆	3 ³ / ₁₆	9 ⁷ / ₁₆	2 ³ / ₄	8 ⁵ / ₈	15 ¹⁵ / ₁₆	1 ¹ / ₂	0.30	2 ³ / ₄
W10 X	33	9 ³ / ₄	8	7 ⁷ / ₁₆	5 ⁵ / ₁₆	3 ³ / ₁₆	8 ⁷ / ₈	3 ⁷ / ₈	7 ⁵ / ₈	1 ¹ / ₁₆	1 ¹ / ₁₆	0.50	5 ¹ / ₂
W10 X	39	9 ⁷ / ₈	8	1 ¹ / ₂	5 ⁵ / ₁₆	3 ³ / ₁₆	8 ⁷ / ₈	3 ⁷ / ₈	7 ⁵ / ₈	1 ¹ / ₈	1 ¹ / ₁₆	0.50	5 ¹ / ₂
W10 X	45	10 ¹ / ₈	8	5 ⁵ / ₈	3 ³ / ₈	3 ³ / ₁₆	8 ⁷ / ₈	3 ⁷ / ₈	7 ⁵ / ₈	1 ¹ / ₄	1 ¹ / ₁₆	0.50	5 ¹ / ₂
W10 X	49	10	10	9 ⁹ / ₁₆	5 ⁵ / ₁₆	3 ³ / ₁₆	8 ⁷ / ₈	4 ⁷ / ₈	7 ⁵ / ₈	1 ³ / ₁₆	1 ¹ / ₁₆	0.50	5 ¹ / ₂
W10 X	54	10 ¹ / ₈	10	5 ⁵ / ₈	3 ³ / ₈	3 ³ / ₁₆	8 ⁷ / ₈	4 ⁷ / ₈	7 ⁵ / ₈	1 ¹ / ₄	1 ¹ / ₁₆	0.50	5 ¹ / ₂
W10 X	60	10 ¹ / ₄	10 ¹ / ₈	1 ¹ / ₁₆	7 ⁷ / ₁₆	1 ¹ / ₄	8 ⁷ / ₈	4 ⁷ / ₈	7 ⁵ / ₈	15 ¹⁵ / ₁₆	3 ³ / ₄	0.50	5 ¹ / ₂
W10 X	68	10 ³ / ₈	10 ¹ / ₈	3 ³ / ₄	1 ¹ / ₂	1 ¹ / ₄	8 ⁷ / ₈	4 ⁷ / ₈	7 ⁵ / ₈	13 ¹³ / ₈	3 ³ / ₄	0.50	5 ¹ / ₂
W10 X	77	10 ⁵ / ₈	10 ¹ / ₄	7 ⁷ / ₈	1 ¹ / ₂	1 ¹ / ₄	8 ⁷ / ₈	4 ⁷ / ₈	7 ⁵ / ₈	11 ¹¹ / ₂	13 ¹³ / ₁₆	0.50	5 ¹ / ₂
W10 X	88	10 ¹ / ₄	10 ¹ / ₄	1	5 ⁵ / ₈	5 ⁵ / ₁₆	8 ⁷ / ₈	4 ⁷ / ₈	7 ⁵ / ₈	15 ¹⁵ / ₈	13 ¹³ / ₁₆	0.50	5 ¹ / ₂
W10 X	100	11 ¹ / ₈	10 ³ / ₈	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₈	8 ⁷ / ₈	4 ⁷ / ₈	7 ⁵ / ₈	13 ¹³ / ₄	7 ⁷ / ₈	0.50	5 ¹ / ₂
W10 X	112	11 ³ / ₈	10 ³ / ₈	1 ¹ / ₄	3 ³ / ₄	3 ³ / ₈	8 ⁷ / ₈	4 ⁷ / ₈	7 ⁵ / ₈	17 ¹⁷ / ₈	15 ¹⁵ / ₁₆	0.50	5 ¹ / ₂
W12 X	14	11 ⁷ / ₈	4	1 ¹ / ₄	3 ³ / ₁₆	1 ¹ / ₈	11 ⁷ / ₁₆	1 ⁷ / ₈	10 ¹ / ₂	1 ¹ / ₁₆	1 ¹ / ₂	0.30	2 ¹ / ₄
W12 X	16	12	4	1 ¹ / ₄	1 ¹ / ₄	1 ¹ / ₈	11 ⁷ / ₁₆	1 ⁷ / ₈	10 ¹ / ₂	3 ³ / ₄	1 ¹ / ₂	0.30	2 ¹ / ₄
W12 X	19	12 ¹ / ₈	4	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₈	11 ⁷ / ₁₆	1 ⁷ / ₈	10 ¹ / ₂	13 ¹³ / ₁₆	1 ¹ / ₂	0.30	2 ¹ / ₄
W12 X	22	12 ¹ / ₄	4	7 ⁷ / ₁₆	1 ¹ / ₄	1 ¹ / ₈	11 ⁷ / ₁₆	1 ⁷ / ₈	10 ¹ / ₂	7 ⁷ / ₈	1 ¹ / ₂	0.30	2 ¹ / ₄
W12 X	26	12 ¹ / ₄	6 ¹ / ₂	3 ³ / ₈	1 ¹ / ₄	1 ¹ / ₈	11 ⁷ / ₁₆	3 ³ / ₈	10 ¹ / ₂	7 ⁷ / ₈	1 ¹ / ₂	0.30	3 ¹ / ₂
W12 X	30	12 ³ / ₈	6 ¹ / ₂	7 ⁷ / ₁₆	1 ¹ / ₄	1 ¹ / ₈	11 ⁷ / ₁₆	3 ³ / ₈	10 ¹ / ₂	15 ¹⁵ / ₁₆	1 ¹ / ₂	0.30	3 ¹ / ₂
W12 X	35	12 ¹ / ₂	6 ¹ / ₂	1 ¹ / ₄	5 ⁵ / ₁₆	3 ³ / ₁₆	11 ⁷ / ₁₆	3 ³ / ₈	10 ¹ / ₂	1	9 ⁹ / ₁₆	0.30	3 ¹ / ₂
W12 X	40	12	8	1 ¹ / ₂	5 ⁵ / ₁₆	3 ³ / ₁₆	10 ¹⁵ / ₁₆	3 ⁷ / ₈	9 ¹ / ₂	1 ¹ / ₄	3 ³ / ₄	0.60	5 ¹ / ₂
W12 X	45	12	8	9 ⁹ / ₁₆	5 ⁵ / ₁₆	3 ³ / ₁₆	10 ¹⁵ / ₁₆	3 ⁷ / ₈	9 ¹ / ₂	1 ¹ / ₄	13 ¹³ / ₁₆	0.60	5 ¹ / ₂
W12 X	50	12 ¹ / ₄	8 ¹ / ₈	5 ⁵ / ₈	3 ³ / ₈	3 ³ / ₁₆	10 ¹⁵ / ₁₆	3 ⁷ / ₈	9 ¹ / ₂	13 ¹³ / ₈	13 ¹³ / ₁₆	0.60	5 ¹ / ₂
W12 X	53	12	10	9 ⁹ / ₁₆	3 ³ / ₈	3 ³ / ₁₆	10 ¹⁵ / ₁₆	4 ⁷ / ₈	9 ¹ / ₂	1 ¹ / ₄	13 ¹³ / ₁₆	0.60	5 ¹ / ₂
W12 X	58	12 ¹ / ₄	10	5 ⁵ / ₈	3 ³ / ₈	3 ³ / ₁₆	10 ¹⁵ / ₁₆	4 ⁷ / ₈	9 ¹ / ₂	13 ¹³ / ₈	13 ¹³ / ₁₆	0.60	5 ¹ / ₂
W12 X	65	12 ¹ / ₈	12	5 ⁵ / ₈	3 ³ / ₈	3 ³ / ₁₆	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	15 ¹⁵ / ₁₆	13 ¹³ / ₁₆	0.60	5 ¹ / ₂
W12 X	72	12 ¹ / ₄	12	1 ¹ / ₁₆	7 ⁷ / ₁₆	1 ¹ / ₄	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	13 ¹³ / ₈	7 ⁷ / ₈	0.60	5 ¹ / ₂
W12 X	79	12 ³ / ₈	12 ¹ / ₈	3 ³ / ₄	1 ¹ / ₂	1 ¹ / ₄	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	17 ¹⁷ / ₁₆	7 ⁷ / ₈	0.60	5 ¹ / ₂
W12 X	87	12 ¹ / ₂	12 ¹ / ₈	13 ¹³ / ₁₆	1 ¹ / ₂	1 ¹ / ₄	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	1 ¹ / ₂	7 ⁷ / ₈	0.60	5 ¹ / ₂
W12 X	96	12 ³ / ₄	12 ¹ / ₈	7 ⁷ / ₈	9 ⁹ / ₁₆	5 ⁵ / ₁₆	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	15 ¹⁵ / ₈	7 ⁷ / ₈	0.60	5 ¹ / ₂

WIDE FLANGE BEAMS

STOCK LENGTHS: 20',30',40',60' ASTM A-36

Designation	Weight per Foot	Depth of Section	Flange		Web Thickness	Half Web Thickness	d-2t _f	a	T	k	k ₁	R	Usual Flange Gage
			Width	Thick-ness									
			b _f	t _f									
lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
W12 X	106	12 ⁷ / ₈	12 ¹ / ₄	1	5/8	5/16	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	1 ¹¹ / ₁₆	5/16	0.60	5 ¹ / ₂
W12 X	120	13 ¹ / ₈	12 ³ / ₈	1 ¹ / ₈	1 ¹ / ₁₆	3/8	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	1 ¹³ / ₁₆	1	0.60	5 ¹ / ₂
W12 X	136	13 ³ / ₈	12 ³ / ₈	1 ¹ / ₄	1 ³ / ₁₆	7/16	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	1 ¹⁵ / ₁₆	1	0.60	5 ¹ / ₂
W12 X	152	13 ³ / ₄	12 ¹ / ₂	1 ³ / ₈	7/8	7/16	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	2 ¹ / ₈	1 ¹ / ₁₆	0.60	5 ¹ / ₂
W12 X	170	14	12 ⁵ / ₈	1 ⁹ / ₁₆	1 ⁵ / ₁₆	1/2	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	2 ¹ / ₄	1 ¹ / ₈	0.60	5 ¹ / ₂
W12 X	190	14 ³ / ₈	12 ⁵ / ₈	1 ³ / ₄	1 ¹ / ₁₆	9/16	10 ¹⁵ / ₁₆	5 ³ / ₄	9 ¹ / ₂	2 ⁷ / ₁₆	1 ³ / ₁₆	0.60	5 ¹ / ₂
W12 X	210	14 ³ / ₄	12 ³ / ₄	1 ⁷ / ₈	1 ³ / ₁₆	5/8	10 ¹⁵ / ₁₆	5 ¹³ / ₁₆	9 ¹ / ₂	2 ⁵ / ₈	1 ¹ / ₄	0.60	5 ¹ / ₂
W12 X	230	15	12 ⁷ / ₈	2 ¹ / ₁₆	1 ⁵ / ₁₆	1 ¹ / ₁₆	10 ¹⁵ / ₁₆	5 ¹³ / ₁₆	9 ¹ / ₂	2 ³ / ₄	1 ¹ / ₄	0.60	5 ¹ / ₂
W12 X	252	15 ³ / ₈	13	2 ¹ / ₄	1 ³ / ₈	1 ¹ / ₁₆	10 ¹⁵ / ₁₆	5 ¹³ / ₁₆	9 ¹ / ₂	2 ¹⁵ / ₁₆	1 ⁵ / ₁₆	0.60	5 ¹ / ₂
W12 X	279	15 ⁷ / ₈	13 ¹ / ₈	2 ¹ / ₂	1 ¹ / ₂	3/4	10 ¹⁵ / ₁₆	5 ¹³ / ₁₆	9 ¹ / ₂	3 ³ / ₁₆	1 ³ / ₈	0.60	5 ¹ / ₂
W12 X	305	16 ³ / ₈	13 ¹ / ₄	2 ¹¹ / ₁₆	1 ⁵ / ₈	1 ³ / ₁₆	10 ¹⁵ / ₁₆	5 ¹³ / ₁₆	9 ¹ / ₂	3 ⁷ / ₁₆	1 ⁷ / ₁₆	0.60	5 ¹ / ₂
W12 X	336	16 ⁷ / ₈	13 ³ / ₈	2 ¹⁵ / ₁₆	1 ³ / ₄	7/8	10 ¹⁵ / ₁₆	5 ¹³ / ₁₆	9 ¹ / ₂	3 ¹³ / ₁₆	1 ¹ / ₂	0.60	5 ¹ / ₂
W14 X	22	13 ³ / ₄	5	5/16	1/4	1/4	13 ¹ / ₁₆	2 ³ / ₈	12	7/8	9/16	0.40	2 ³ / ₄
W14 X	26	13 ⁷ / ₈	5	7/16	1/4	1/4	13 ¹ / ₁₆	2 ³ / ₈	12	1 ⁵ / ₁₆	9/16	0.40	2 ³ / ₄
W14 X	30	13 ⁷ / ₈	6 ³ / ₄	3/8	1/4	1/4	13 ¹ / ₁₆	3 ¹ / ₄	12	1 ⁵ / ₁₆	5/8	0.40	3 ¹ / ₂
W14 X	34	14	6 ³ / ₄	7/16	5/16	3/16	13 ¹ / ₁₆	3 ¹ / ₄	12	1	5/8	0.40	3 ¹ / ₂
W14 X	38	14 ¹ / ₈	6 ³ / ₄	1/2	5/16	3/16	13 ¹ / ₁₆	3 ¹ / ₄	12	1 ¹ / ₁₆	5/8	0.40	3 ¹ / ₂
W14 X	43	13 ⁵ / ₈	8	1/2	5/16	3/16	12 ⁵ / ₈	3 ⁷ / ₈	11	1 ⁵ / ₁₆	7/8	0.60	5 ¹ / ₂
W14 X	48	13 ³ / ₄	8	5/8	5/16	3/16	12 ⁵ / ₈	3 ⁷ / ₈	11	1 ³ / ₈	7/8	0.60	5 ¹ / ₂
W14 X	53	13 ⁷ / ₈	8	1 ¹ / ₁₆	3/8	3/16	12 ⁵ / ₈	3 ⁷ / ₈	11	1 ⁷ / ₁₆	1 ⁵ / ₁₆	0.60	5 ¹ / ₂
W14 X	61	13 ⁷ / ₈	10	5/8	3/8	3/16	12 ⁵ / ₈	4 ³ / ₄	11	1 ⁷ / ₁₆	1 ⁵ / ₁₆	0.60	5 ¹ / ₂
W14 X	68	14	10	3/4	7/16	1/4	12 ⁵ / ₈	4 ³ / ₄	11	1 ¹ / ₂	1 ⁵ / ₁₆	0.60	5 ¹ / ₂
W14 X	74	14 ¹ / ₈	10 ¹ / ₈	1 ³ / ₁₆	7/16	1/4	12 ⁵ / ₈	4 ³ / ₄	11	1 ⁹ / ₁₆	1 ⁵ / ₁₆	0.60	5 ¹ / ₂
W14 X	82	14 ¹ / ₈	10 ¹ / ₈	7/8	1/2	1/4	12 ⁵ / ₈	4 ³ / ₄	11	1 ⁵ / ₈	1	0.60	5 ¹ / ₂
W14 X	90	14	14 ¹ / ₂	1 ¹ / ₁₆	7/16	1/4	12 ⁵ / ₈	7	11 ¹ / ₄	1 ³ / ₈	7/8	0.60	5 ¹ / ₂
W14 X	99	14 ¹ / ₄	14 ⁵ / ₈	3/4	1/2	1/4	12 ⁵ / ₈	7	11 ¹ / ₄	1 ⁹ / ₁₆	7/8	0.60	5 ¹ / ₂
W14 X	109	14 ³ / ₈	14 ⁵ / ₈	7/8	1/2	1/4	12 ⁵ / ₈	7	11 ¹ / ₄	1 ⁹ / ₁₆	7/8	0.60	5 ¹ / ₂
W14 X	120	14 ¹ / ₂	14 ⁵ / ₈	1 ⁵ / ₁₆	9/16	5/16	12 ⁵ / ₈	7	11 ¹ / ₄	1 ⁵ / ₈	1 ⁵ / ₁₆	0.60	5 ¹ / ₂
W14 X	132	14 ⁵ / ₈	14 ³ / ₄	1	5/8	5/16	12 ⁵ / ₈	7	11 ¹ / ₄	1 ¹¹ / ₁₆	1 ⁵ / ₁₆	0.60	5 ¹ / ₂
W14 X	145	14 ³ / ₄	15 ¹ / ₂	1 ¹ / ₁₆	1 ¹ / ₁₆	3/8	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	1 ³ / ₄	1	0.60	3-(5 ¹ / ₂)-3
W14 X	159	15	15 ⁵ / ₈	1 ³ / ₁₆	3/4	3/8	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	1 ⁷ / ₈	1	0.60	3-(5 ¹ / ₂)-3
W14 X	176	15 ¹ / ₄	15 ⁵ / ₈	1 ⁵ / ₁₆	1 ³ / ₁₆	7/16	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	2	1 ¹ / ₁₆	0.60	3-(5 ¹ / ₂)-3
W14 X	193	15 ¹ / ₂	15 ³ / ₄	1 ⁷ / ₁₆	7/8	7/16	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	2 ¹ / ₈	1 ¹ / ₁₆	0.60	3-(5 ¹ / ₂)-3
W14 X	211	15 ³ / ₄	15 ³ / ₄	1 ⁹ / ₁₆	1	1/2	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	2 ¹ / ₄	1 ¹ / ₈	0.60	3-(5 ¹ / ₂)-3
W14 X	233	16	15 ⁷ / ₈	1 ³ / ₄	1 ¹ / ₁₆	9/16	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	2 ³ / ₈	1 ³ / ₁₆	0.60	3-(5 ¹ / ₂)-3
W14 X	257	16 ³ / ₈	16	1 ⁷ / ₈	1 ³ / ₁₆	5/8	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	2 ⁹ / ₁₆	1 ³ / ₁₆	0.60	3-(5 ¹ / ₂)-3
W14 X	283	16 ³ / ₄	16 ¹ / ₈	2 ¹ / ₁₆	1 ⁵ / ₁₆	1 ¹ / ₁₆	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	2 ³ / ₄	1 ¹ / ₄	0.60	3-(5 ¹ / ₂)-3
W14 X	311	17 ¹ / ₈	16 ¹ / ₄	2 ¹ / ₄	1 ⁷ / ₁₆	3/4	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	2 ¹⁵ / ₁₆	1 ⁵ / ₁₆	0.60	3-(5 ¹ / ₂)-3
W14 X	342	17 ¹ / ₂	16 ³ / ₈	2 ¹ / ₂	1 ⁹ / ₁₆	1 ³ / ₁₆	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	3 ¹ / ₈	1 ³ / ₈	0.60	3-(5 ¹ / ₂)-3
W14 X	370	17 ⁷ / ₈	16 ¹ / ₂	2 ¹¹ / ₁₆	1 ⁵ / ₈	1 ³ / ₁₆	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	3 ⁵ / ₁₆	1 ⁷ / ₁₆	0.60	3-(5 ¹ / ₂)-3
W14 X	398	18 ¹ / ₄	16 ⁵ / ₈	2 ⁷ / ₈	1 ³ / ₄	7/8	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	3 ¹ / ₂	1 ¹ / ₂	0.60	3-(5 ¹ / ₂)-3
W14 X	426	18 ⁵ / ₈	16 ³ / ₄	2 ¹⁵ / ₁₆	1 ⁷ / ₈	1 ⁵ / ₁₆	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	3 ¹¹ / ₁₆	1 ⁹ / ₁₆	0.60	3-(5 ¹ / ₂)-3

WIDE FLANGE BEAMS

STOCK LENGTHS: 20',30',40',60' ASTM A-36

Designation	Weight per Foot	Depth of Section d	Flange		Web Thickness t _w	Half Web Thickness $\frac{t_w}{2}$	d-2t _f	a	T	k	k ₁	R	Usual Flange Gage g
			Width	Thick-ness									
			b _f	t _f									
lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
W14 X 455	19	16 ⁷ / ₈	3 ³ / ₁₆	2	1	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	3 ⁷ / ₈	1 ⁵ / ₈	0.60	3-(7 ¹ / ₂)-3	
W14 X 500	19 ⁵ / ₈	17	3 ¹ / ₂	2 ³ / ₁₆	1 ¹ / ₈	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	4 ³ / ₁₆	1 ³ / ₄	0.60	3-(7 ¹ / ₂)-3	
W14 X 550	20 ¹ / ₄	17 ¹ / ₄	3 ¹³ / ₁₆	2 ³ / ₈	1 ³ / ₁₆	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	4 ¹ / ₂	1 ¹³ / ₁₆	0.60	3-(7 ¹ / ₂)-3	
W14 X 605	20 ⁷ / ₈	17 ³ / ₈	4 ³ / ₁₆	2 ⁵ / ₈	1 ⁵ / ₁₆	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	4 ¹³ / ₁₆	1 ¹⁵ / ₁₆	0.60	3-(7 ¹ / ₂)-3	
W14 X 665	21 ⁵ / ₈	17 ⁵ / ₈	4 ¹ / ₂	2 ¹³ / ₁₆	1 ⁷ / ₁₆	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	5 ³ / ₁₆	2 ¹ / ₁₆	0.60	3-(7 ¹ / ₂)-3	
W14 X 730	22 ³ / ₈	17 ⁷ / ₈	4 ¹⁵ / ₁₆	3 ¹ / ₁₆	1 ⁹ / ₁₆	12 ⁵ / ₈	7 ³ / ₈	11 ¹ / ₄	5 ⁹ / ₁₆	2 ³ / ₁₆	0.60	3-(7 ¹ / ₂)-3	
W16 X 26	15 ³ / ₄	5 ¹ / ₂	3 ⁸ / ₁₆	1 ⁴ / ₁₆	1 ⁸ / ₁₆	15	2 ⁵ / ₈	13 ⁵ / ₈	1 ¹ / ₁₆	3 ⁴ / ₁₆	0.40	2 ³ / ₄	
W16 X 31	15 ⁷ / ₈	5 ¹ / ₂	7 ¹ / ₁₆	1 ⁴ / ₁₆	1 ⁸ / ₁₆	15	2 ⁵ / ₈	13 ⁵ / ₈	1 ¹ / ₈	3 ⁴ / ₁₆	0.40	2 ³ / ₄	
W16 X 36	15 ⁷ / ₈	7	7 ¹ / ₁₆	5 ¹ / ₁₆	3 ¹ / ₁₆	15	3 ³ / ₈	13 ⁵ / ₈	1 ¹ / ₈	3 ⁴ / ₁₆	0.40	3 ¹ / ₂	
W16 X 40	16	7	1 ² / ₁₆	5 ¹ / ₁₆	3 ¹ / ₁₆	15	3 ³ / ₈	13 ⁵ / ₈	1 ³ / ₁₆	1 ³ / ₁₆	0.40	3 ¹ / ₂	
W16 X 45	16 ¹ / ₈	7	9 ¹ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	15	3 ³ / ₈	13 ⁵ / ₈	1 ¹ / ₄	1 ³ / ₁₆	0.40	3 ¹ / ₂	
W16 X 50	16 ¹ / ₄	7 ¹ / ₈	5 ⁸ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	15	3 ³ / ₈	13 ⁵ / ₈	1 ⁵ / ₁₆	1 ³ / ₁₆	0.40	3 ¹ / ₂	
W16 X 57	16 ³ / ₈	7 ¹ / ₈	1 ¹ / ₁₆	7 ¹ / ₁₆	1 ⁴ / ₁₆	15	3 ³ / ₈	13 ⁵ / ₈	1 ³ / ₈	7 ⁸ / ₁₆	0.40	3 ¹ / ₂	
W16 X 67	16 ³ / ₈	10 ¹ / ₄	1 ¹ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	15	4 ⁷ / ₈	13 ⁵ / ₈	1 ³ / ₈	1 ³ / ₁₆	0.40	5 ¹ / ₂	
W16 X 77	16 ¹ / ₂	10 ¹ / ₄	3 ⁴ / ₁₆	7 ¹ / ₁₆	1 ⁴ / ₁₆	15	4 ⁷ / ₈	13 ⁵ / ₈	1 ⁷ / ₁₆	7 ⁸ / ₁₆	0.40	5 ¹ / ₂	
W16 X 89	16 ³ / ₄	10 ³ / ₈	7 ⁸ / ₁₆	1 ² / ₁₆	1 ⁴ / ₁₆	15	4 ⁷ / ₈	13 ⁵ / ₈	1 ⁹ / ₁₆	7 ⁸ / ₁₆	0.40	5 ¹ / ₂	
W16 X 100	17	10 ³ / ₈	1	9 ¹ / ₁₆	5 ¹ / ₁₆	15	4 ⁷ / ₈	13 ⁵ / ₈	1 ¹¹ / ₁₆	1 ¹⁵ / ₁₆	0.40	5 ¹ / ₂	
W18 X 35	17 ³ / ₄	6	7 ¹ / ₁₆	5 ¹ / ₁₆	3 ¹ / ₁₆	16 ⁷ / ₈	2 ⁷ / ₈	15 ¹ / ₂	1 ¹ / ₈	3 ⁴ / ₁₆	0.40	3 ¹ / ₂	
W18 X 40	17 ⁷ / ₈	6	1 ² / ₁₆	5 ¹ / ₁₆	3 ¹ / ₁₆	16 ⁷ / ₈	2 ⁷ / ₈	15 ¹ / ₂	1 ³ / ₁₆	1 ³ / ₁₆	0.40	3 ¹ / ₂	
W18 X 46	18	6	5 ⁸ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	16 ⁷ / ₈	2 ⁷ / ₈	15 ¹ / ₂	1 ¹ / ₄	1 ³ / ₁₆	0.40	3 ¹ / ₂	
W18 X 50	18	7 ¹ / ₂	9 ¹ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	16 ⁷ / ₈	3 ⁵ / ₈	15 ¹ / ₂	1 ¹ / ₄	1 ³ / ₁₆	0.40	3 ¹ / ₂	
W18 X 55	18 ¹ / ₈	7 ¹ / ₂	5 ⁸ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	16 ⁷ / ₈	3 ⁵ / ₈	15 ¹ / ₂	1 ⁵ / ₁₆	1 ³ / ₁₆	0.40	3 ¹ / ₂	
W18 X 60	18 ¹ / ₄	7 ¹ / ₂	1 ¹ / ₁₆	7 ¹ / ₁₆	1 ⁴ / ₁₆	16 ⁷ / ₈	3 ⁵ / ₈	15 ¹ / ₂	1 ³ / ₈	1 ³ / ₁₆	0.40	3 ¹ / ₂	
W18 X 65	18 ³ / ₈	7 ⁵ / ₈	3 ⁴ / ₁₆	7 ¹ / ₁₆	1 ⁴ / ₁₆	16 ⁷ / ₈	3 ⁵ / ₈	15 ¹ / ₂	1 ⁷ / ₁₆	7 ⁸ / ₁₆	0.40	3 ¹ / ₂	
W18 X 71	18 ¹ / ₂	7 ⁵ / ₂	1 ³ / ₁₆	1 ² / ₁₆	1 ⁴ / ₁₆	16 ⁷ / ₈	3 ⁵ / ₈	15 ¹ / ₂	1 ¹ / ₂	7 ⁸ / ₁₆	0.40	3 ¹ / ₂	
W18 X 76	18 ¹ / ₄	11	1 ¹ / ₁₆	7 ¹ / ₁₆	1 ⁴ / ₁₆	16 ⁷ / ₈	5 ¹ / ₄	15 ¹ / ₂	1 ³ / ₈	1 ³ / ₁₆	0.40	5 ¹ / ₂	
W18 X 86	18 ³ / ₈	11 ¹ / ₈	3 ⁴ / ₁₆	1 ² / ₁₆	1 ⁴ / ₁₆	16 ⁷ / ₈	5 ¹ / ₄	15 ¹ / ₂	1 ⁷ / ₁₆	7 ⁸ / ₁₆	0.40	5 ¹ / ₂	
W18 X 97	18 ⁵ / ₈	11 ¹ / ₈	7 ⁸ / ₁₆	9 ¹ / ₁₆	1 ⁴ / ₁₆	16 ⁷ / ₈	5 ¹ / ₄	15 ¹ / ₂	1 ⁹ / ₁₆	7 ⁸ / ₁₆	0.40	5 ¹ / ₂	
W18 X 106	18 ³ / ₄	11 ¹ / ₄	1 ⁵ / ₁₆	9 ¹ / ₁₆	5 ¹ / ₁₆	16 ⁷ / ₈	5 ¹ / ₄	15 ¹ / ₂	1 ⁵ / ₈	1 ¹⁵ / ₁₆	0.40	5 ¹ / ₂	
W18 X 119	19	11 ¹ / ₄	1 ¹ / ₁₆	5 ⁸ / ₁₆	5 ¹ / ₁₆	16 ⁷ / ₈	5 ¹ / ₄	15 ¹ / ₂	1 ³ / ₄	1 ¹⁵ / ₁₆	0.40	5 ¹ / ₂	
W21 X 44	20 ⁵ / ₈	6 ¹ / ₂	7 ¹ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	19 ³ / ₄	3 ¹ / ₈	18 ¹ / ₄	1 ³ / ₁₆	7 ⁸ / ₁₆	0.50	3 ¹ / ₂	
W21 X 50	20 ⁷ / ₈	6 ¹ / ₂	9 ¹ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	19 ³ / ₄	3 ¹ / ₈	18 ¹ / ₄	1 ⁵ / ₁₆	7 ⁸ / ₁₆	0.50	3 ¹ / ₂	
W21 X 57	21	6 ¹ / ₂	5 ⁸ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	19 ³ / ₄	3 ¹ / ₈	18 ¹ / ₄	1 ³ / ₈	7 ⁸ / ₁₆	0.50	3 ¹ / ₂	
W21 X 62	21	8 ¹ / ₄	5 ⁸ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	19 ³ / ₄	3 ⁷ / ₈	18 ¹ / ₄	1 ³ / ₈	7 ⁸ / ₁₆	0.50	5 ¹ / ₂	
W21 X 68	21 ¹ / ₈	8 ¹ / ₄	1 ¹ / ₁₆	7 ¹ / ₁₆	1 ⁴ / ₁₆	19 ³ / ₄	3 ⁷ / ₈	18 ¹ / ₄	1 ⁷ / ₁₆	7 ⁸ / ₁₆	0.50	5 ¹ / ₂	
W21 X 73	21 ¹ / ₄	8 ¹ / ₄	3 ⁴ / ₁₆	7 ¹ / ₁₆	1 ⁴ / ₁₆	19 ³ / ₄	3 ⁷ / ₈	18 ¹ / ₄	1 ¹ / ₂	1 ¹⁵ / ₁₆	0.50	5 ¹ / ₂	
W21 X 83	21 ³ / ₈	8 ³ / ₈	1 ³ / ₁₆	1 ² / ₁₆	1 ⁴ / ₁₆	19 ³ / ₄	3 ⁷ / ₈	18 ¹ / ₄	1 ⁹ / ₁₆	1 ¹⁵ / ₁₆	0.50	5 ¹ / ₂	
W21 X 93	21 ⁵ / ₈	8 ³ / ₈	1 ⁵ / ₁₆	9 ¹ / ₁₆	5 ¹ / ₁₆	19 ³ / ₄	3 ⁷ / ₈	18 ¹ / ₄	1 ¹¹ / ₁₆	1	0.50	5 ¹ / ₂	
W21 X 101	21 ³ / ₈	12 ¹ / ₄	1 ³ / ₁₆	1 ² / ₁₆	1 ⁴ / ₁₆	19 ³ / ₄	5 ⁷ / ₈	18 ¹ / ₄	1 ⁹ / ₁₆	1 ¹⁵ / ₁₆	0.50	5 ¹ / ₂	
W21 X 111	21 ¹ / ₂	12 ³ / ₈	7 ⁸ / ₁₆	9 ¹ / ₁₆	5 ¹ / ₁₆	19 ³ / ₄	5 ⁷ / ₈	18 ¹ / ₄	1 ⁵ / ₈	1 ¹⁵ / ₁₆	0.50	5 ¹ / ₂	
W21 X 122	21 ⁵ / ₈	12 ³ / ₈	1 ⁵ / ₁₆	5 ⁸ / ₁₆	5 ¹ / ₁₆	19 ³ / ₄	5 ⁷ / ₈	18 ¹ / ₄	1 ¹¹ / ₁₆	1	0.50	5 ¹ / ₂	
W21 X 132	21 ⁷ / ₈	12 ¹ / ₂	1 ¹ / ₁₆	5 ⁸ / ₁₆	5 ¹ / ₁₆	19 ³ / ₄	5 ⁷ / ₈	18 ¹ / ₄	1 ¹³ / ₁₆	1	0.50	5 ¹ / ₂	
W21 X 147	22	12 ¹ / ₂	1 ¹ / ₈	3 ⁴ / ₁₆	3 ⁸ / ₁₆	19 ³ / ₄	5 ⁷ / ₈	18 ¹ / ₄	1 ⁷ / ₈	1 ¹ / ₁₆	0.50	5 ¹ / ₂	
W24 X 55	23 ³ / ₈	7	1 ² / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	22 ⁹ / ₁₆	3 ¹ / ₄	21	1 ⁵ / ₁₆	1 ¹⁵ / ₁₆	0.50	3 ¹ / ₂	
W24 X 62	23 ⁷ / ₈	7	9 ¹ / ₁₆	7 ¹ / ₁₆	1 ⁴ / ₁₆	22 ⁹ / ₁₆	3 ¹ / ₄	21	1 ³ / ₈	1 ¹⁵ / ₁₆	0.50	3 ¹ / ₂	

WIDE FLANGE BEAMS

STOCK LENGTHS: 20',30',40',60' ASTM A-36

Designation	Weight per Foot	Depth of Section d	Flange		Web Thickness t _w	Half Web Thickness $\frac{t_w}{2}$	d-2t _f	a	T	k	k ₁	R	Usual Flange Gage g
			Width b _f	Thick-ness t _f									
			lb.	in.									
W24 X 68	23 ³ / ₄	9	9 ¹ / ₁₆	7 ¹ / ₁₆	1 ¹ / ₄	22 ⁹ / ₁₆	4 ¹ / ₄	21	1 ³ / ₈	1 ⁵ / ₁₆	0.50	5 ¹ / ₂	
W24 X 76	23 ⁷ / ₈	9	1 ¹ / ₁₆	7 ¹ / ₁₆	1 ¹ / ₄	22 ⁹ / ₁₆	4 ¹ / ₄	21	1 ⁷ / ₁₆	1 ⁵ / ₁₆	0.50	5 ¹ / ₂	
W24 X 84	24 ¹ / ₈	9	3 ³ / ₄	1 ¹ / ₂	1 ¹ / ₄	22 ⁹ / ₁₆	4 ¹ / ₄	21	1 ⁹ / ₁₆	1 ⁵ / ₁₆	0.50	5 ¹ / ₂	
W24 X 94	24 ¹ / ₄	9 ¹ / ₈	7 ⁷ / ₈	1 ¹ / ₂	1 ¹ / ₄	22 ⁹ / ₁₆	4 ¹ / ₄	21	1 ⁵ / ₈	1	0.50	5 ¹ / ₂	
W24 X 104	24	12 ³ / ₄	3 ³ / ₄	1 ¹ / ₂	1 ¹ / ₄	22 ⁹ / ₁₆	6 ¹ / ₈	21	1 ¹ / ₂	1	0.50	5 ¹ / ₂	
W24 X 117	24 ¹ / ₄	12 ³ / ₄	7 ⁷ / ₈	9 ¹ / ₁₆	5 ¹ / ₁₆	22 ⁹ / ₁₆	6 ¹ / ₈	21	1 ⁵ / ₈	1	0.50	5 ¹ / ₂	
W24 X 131	24 ¹ / ₂	12 ⁷ / ₈	1 ⁵ / ₁₆	5 ⁵ / ₈	5 ¹ / ₁₆	22 ⁹ / ₁₆	6 ¹ / ₈	21	1 ³ / ₄	1 ¹ / ₁₆	0.50	5 ¹ / ₂	
W24 X 146	24 ³ / ₄	12 ⁷ / ₈	1 ¹ / ₁₆	5 ⁵ / ₈	5 ¹ / ₁₆	22 ⁹ / ₁₆	6 ¹ / ₈	21	1 ⁷ / ₈	1 ¹ / ₁₆	0.50	5 ¹ / ₂	
W24 X 162	25	13	1 ¹ / ₄	1 ¹ / ₁₆	3 ³ / ₈	22 ⁹ / ₁₆	6 ¹ / ₈	21	2	1 ¹ / ₁₆	0.50	5 ¹ / ₂	
W27 X 84	26 ³ / ₄	10	5 ⁵ / ₈	7 ¹ / ₁₆	1 ¹ / ₄	25 ⁷ / ₁₆	4 ³ / ₄	24	1 ³ / ₈	1 ⁵ / ₁₆	0.60	5 ¹ / ₂	
W27 X 94	26 ⁷ / ₈	10	3 ³ / ₄	1 ¹ / ₂	1 ¹ / ₄	25 ⁷ / ₁₆	4 ³ / ₄	24	1 ⁷ / ₁₆	1 ⁵ / ₁₆	0.60	5 ¹ / ₂	
W27 X 102	27 ¹ / ₈	10	1 ⁵ / ₁₆	1 ¹ / ₂	1 ¹ / ₄	25 ⁷ / ₁₆	4 ³ / ₄	24	1 ⁹ / ₁₆	1 ⁵ / ₁₆	0.60	5 ¹ / ₂	
W27 X 114	27 ¹ / ₄	10 ¹ / ₈	1 ⁵ / ₁₆	9 ¹ / ₁₆	5 ¹ / ₁₆	25 ⁷ / ₁₆	4 ³ / ₄	24	1 ⁵ / ₈	1 ⁵ / ₁₆	0.60	5 ¹ / ₂	
W27 X 146	27 ³ / ₈	14	1	5 ⁵ / ₈	5 ¹ / ₁₆	25 ⁷ / ₁₆	6 ⁵ / ₈	24	1 ¹ / ₁₆	1	0.60	5 ¹ / ₂	
W27 X 161	27 ⁵ / ₈	14	1 ¹ / ₁₆	1 ¹ / ₁₆	3 ³ / ₈	25 ⁷ / ₁₆	6 ⁵ / ₈	24	1 ³ / ₁₆	1	0.60	5 ¹ / ₂	
W27 X 179	27 ³ / ₄	14 ¹ / ₈	1 ³ / ₁₆	3 ³ / ₄	3 ³ / ₈	25 ⁷ / ₁₆	6 ⁵ / ₈	24	1 ⁷ / ₈	1 ¹ / ₁₆	0.60	5 ¹ / ₂	
W30 X 99	29 ⁵ / ₈	10 ¹ / ₂	1 ¹ / ₁₆	1 ¹ / ₂	1 ¹ / ₄	28 ⁵ / ₁₆	5	26 ³ / ₄	1 ⁷ / ₁₆	1	0.65	5 ¹ / ₂	
W30 X 108	29 ⁷ / ₈	10 ¹ / ₂	3 ³ / ₄	9 ¹ / ₁₆	5 ¹ / ₁₆	28 ⁵ / ₁₆	5	26 ³ / ₄	1 ⁹ / ₁₆	1	0.65	5 ¹ / ₂	
W30 X 116	30	10 ¹ / ₂	7 ⁷ / ₈	9 ¹ / ₁₆	5 ¹ / ₁₆	28 ⁵ / ₁₆	5	26 ³ / ₄	1 ⁵ / ₈	1	0.65	5 ¹ / ₂	
W30 X 124	30 ¹ / ₈	10 ¹ / ₂	1 ⁵ / ₁₆	9 ¹ / ₁₆	5 ¹ / ₁₆	28 ⁵ / ₁₆	5	26 ³ / ₄	1 ¹ / ₁₆	1	0.65	5 ¹ / ₂	
W30 X 132	30 ¹ / ₄	10 ¹ / ₂	1	5 ⁵ / ₈	5 ¹ / ₁₆	28 ⁵ / ₁₆	5	26 ³ / ₄	1 ³ / ₄	1 ¹ / ₁₆	0.65	5 ¹ / ₂	
W30 X 173	30 ¹ / ₂	15	1 ¹ / ₁₆	5 ⁵ / ₈	5 ¹ / ₁₆	28 ⁵ / ₁₆	7 ¹ / ₈	26 ³ / ₄	1 ⁷ / ₈	1 ¹ / ₁₆	0.65	5 ¹ / ₂	
W30 X 191	30 ⁵ / ₈	15	1 ³ / ₁₆	1 ⁵ / ₁₆	3 ³ / ₈	28 ⁵ / ₁₆	7 ¹ / ₈	26 ³ / ₄	1 ⁵ / ₁₆	1 ¹ / ₁₆	0.65	5 ¹ / ₂	
W30 X 211	31	15 ¹ / ₈	1 ⁵ / ₁₆	3 ³ / ₄	3 ³ / ₈	28 ⁵ / ₁₆	7 ¹ / ₈	26 ³ / ₄	2 ¹ / ₈	1 ¹ / ₈	0.65	5 ¹ / ₂	
W33 X 118	32 ⁷ / ₈	11 ¹ / ₂	3 ³ / ₄	9 ¹ / ₁₆	5 ¹ / ₁₆	31 ³ / ₈	5 ¹ / ₂	29 ³ / ₄	1 ⁹ / ₁₆	1 ¹ / ₁₆	0.70	5 ¹ / ₂	
W33 X 130	33 ¹ / ₈	11 ¹ / ₂	7 ⁷ / ₈	9 ¹ / ₁₆	5 ¹ / ₁₆	31 ³ / ₈	5 ¹ / ₂	29 ³ / ₄	1 ¹ / ₁₆	1 ¹ / ₁₆	0.70	5 ¹ / ₂	
W33 X 141	33 ¹ / ₄	11 ¹ / ₂	1 ⁵ / ₁₆	5 ⁵ / ₈	5 ¹ / ₁₆	31 ³ / ₈	5 ¹ / ₂	29 ³ / ₄	1 ³ / ₄	1 ¹ / ₁₆	0.70	5 ¹ / ₂	
W33 X 152	33 ¹ / ₂	11 ⁵ / ₈	1 ¹ / ₁₆	5 ⁵ / ₈	5 ¹ / ₁₆	31 ³ / ₈	5 ¹ / ₂	29 ³ / ₄	1 ⁷ / ₈	1 ¹ / ₈	0.70	5 ¹ / ₂	
W33 X 201	33 ⁵ / ₈	15 ³ / ₄	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₈	31 ³ / ₈	7 ¹ / ₂	29 ³ / ₄	1 ¹⁵ / ₁₆	1 ¹ / ₈	0.70	5 ¹ / ₂	
W33 X 221	33 ³ / ₄	15 ³ / ₄	1 ¹ / ₄	3 ³ / ₄	3 ³ / ₈	31 ³ / ₈	7 ¹ / ₂	29 ³ / ₄	2 ¹ / ₁₆	1 ³ / ₁₆	0.70	5 ¹ / ₂	
W33 X 241	34 ¹ / ₈	15 ⁷ / ₈	1 ³ / ₈	1 ³ / ₁₆	7 ¹ / ₁₆	31 ³ / ₈	7 ¹ / ₂	29 ³ / ₄	2 ³ / ₁₆	1 ³ / ₁₆	0.70	5 ¹ / ₂	
W36 X 135	35 ¹ / ₂	12	1 ³ / ₁₆	5 ⁵ / ₈	5 ¹ / ₁₆	34	5 ⁵ / ₈	32 ¹ / ₈	1 ¹ / ₁₆	1 ¹ / ₈	0.75	5 ¹ / ₂	
W36 X 150	35 ⁷ / ₈	12	1 ⁵ / ₁₆	5 ⁵ / ₈	5 ¹ / ₁₆	34	5 ⁵ / ₈	32 ¹ / ₈	1 ⁷ / ₈	1 ¹ / ₈	0.75	5 ¹ / ₂	
W36 X 160	36	12	1	5 ⁵ / ₈	5 ¹ / ₁₆	34	5 ⁵ / ₈	32 ¹ / ₈	1 ¹⁵ / ₁₆	1 ¹ / ₈	0.75	5 ¹ / ₂	
W36 X 170	36 ¹ / ₈	12	1 ¹ / ₈	1 ¹ / ₁₆	3 ³ / ₈	34	5 ⁵ / ₈	32 ¹ / ₈	2	1 ³ / ₁₆	0.75	5 ¹ / ₂	
W36 X 182	36 ³ / ₈	12 ¹ / ₈	1 ³ / ₁₆	3 ³ / ₄	3 ³ / ₈	34	5 ⁵ / ₈	32 ¹ / ₈	2 ¹ / ₈	1 ³ / ₁₆	0.75	5 ¹ / ₂	
W36 X 194	36 ¹ / ₂	12 ¹ / ₈	1 ¹ / ₄	3 ³ / ₄	3 ³ / ₈	34	5 ⁵ / ₈	32 ¹ / ₈	2 ³ / ₁₆	1 ³ / ₁₆	0.75	5 ¹ / ₂	
W36 X 210	36 ³ / ₄	12 ¹ / ₈	1 ³ / ₈	1 ³ / ₁₆	7 ¹ / ₁₆	34	5 ⁵ / ₈	32 ¹ / ₈	2 ⁵ / ₁₆	1 ¹ / ₄	0.75	5 ¹ / ₂	
W36 X 230	35 ⁷ / ₈	16 ¹ / ₂	1 ¹ / ₄	3 ³ / ₄	3 ³ / ₈	33 ³ / ₈	7 ⁷ / ₈	31 ¹ / ₈	2 ³ / ₈	1 ⁷ / ₁₆	0.95	5 ¹ / ₂	
W36 X 245	36 ¹ / ₈	16 ¹ / ₂	1 ³ / ₈	1 ³ / ₁₆	7 ¹ / ₁₆	33 ³ / ₈	7 ⁷ / ₈	31 ¹ / ₈	2 ¹ / ₂	1 ⁷ / ₁₆	0.95	5 ¹ / ₂	
W36 X 260	36 ¹ / ₄	16 ¹ / ₂	1 ⁷ / ₁₆	1 ³ / ₁₆	7 ¹ / ₁₆	33 ³ / ₈	7 ⁷ / ₈	31 ¹ / ₈	1 ⁹ / ₁₆	1 ¹ / ₂	0.95	5 ¹ / ₂	
W36 X 280	36 ¹ / ₂	16 ⁵ / ₈	1 ⁹ / ₁₆	7 ⁷ / ₈	7 ¹ / ₁₆	33 ³ / ₈	7 ⁷ / ₈	31 ¹ / ₈	2 ¹ / ₁₆	1 ¹ / ₂	0.95	5 ¹ / ₂	
W36 X 300	36 ³ / ₄	16 ⁵ / ₈	1 ¹⁵ / ₁₆	1 ⁵ / ₁₆	1 ¹ / ₂	33 ³ / ₈	7 ⁷ / ₈	31 ¹ / ₈	2 ¹ / ₁₆	1 ¹ / ₂	0.95	5 ¹ / ₂	