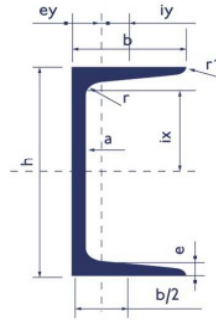


# PERFILES UPN

MEDIDAS Y PROPIEDADES  
DE LA SECCIÓN



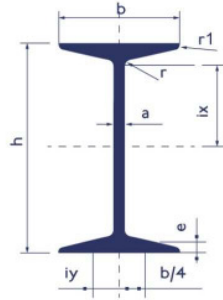
COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

Designación del Perfil	Altura	Ala	Espesor Alma	Espesor Ala	Radios de Acuerdo		Centro de Gravedad	Sección Nominal	Masa Nominal	Momento de Inercia		Módulo Resistente		Radio de Giro	
	h	b	a	e	r	r <sub>1</sub>	e <sub>y</sub>	S	G	I <sub>x</sub>	I <sub>y</sub>	W <sub>x</sub>	W <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>
	mm	mm	mm	mm	mm	mm	cm	cm <sup>2</sup>	Kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
UPN 80	80	45	6.0	8.0	8.0	4.0	1.45	11.0	<b>8.6</b>	106	19.4	26.5	6.36	3.10	1.33
UPN 100	100	50	6.0	8.5	8.5	4.5	1.55	13.5	<b>10.6</b>	206	29.3	41.2	8.49	3.91	1.47
UPN 120	120	55	7.0	9.0	9.0	4.5	1.60	17.0	<b>13.4</b>	364	43.2	60.7	11.1	4.62	1.55
UPN 140	140	60	7.0	10.0	10.0	5.0	1.75	20.4	<b>16.0</b>	605	62.7	86.4	14.8	5.45	1.75
UPN 160	160	65	7.5	10.5	10.5	5.5	1.84	24.0	<b>18.8</b>	925	85.3	116.0	18.3	6.21	1.89
UPN 180	180	70	8.0	11.0	11.0	5.5	1.92	28.0	<b>22.0</b>	1350	114.0	150.0	22.4	6.95	2.02
UPN 200	200	75	8.5	11.5	11.5	6.0	2.01	32.2	<b>25.3</b>	1910	148.0	191.0	27.0	7.70	2.14
UPN 220	220	80	9.0	12.5	12.5	6.5	2.14	37.4	<b>29.4</b>	2690	197.0	245.0	33.6	8.48	2.26
UPN 240	240	85	9.5	13.0	13.0	6.5	2.23	42.3	<b>33.2</b>	3600	248.0	300.0	39.6	9.22	2.42
UPN 260	260	90	10.0	14.0	14.0	7.0	2.36	48.3	<b>37.9</b>	4820	317.0	371.0	47.7	9.99	2.56
UPN 280	280	95	10.0	15.0	15.0	7.5	2.53	53.3	<b>41.8</b>	6280	399.0	448.0	57.2	10.90	2.74
UPN 300	300	100	10.0	16.0	16.0	8.0	2.70	58.8	<b>46.2</b>	8030	495.0	535.0	67.8	11.70	2.90
UPN 320	320	100	14.0	17.5	17.5	8.7	2.60	75.8	<b>59.5</b>	10870	597.0	679.0	80.6	12.10	2.81
UPN 400	400	110	14.0	18.0	18.0	9.0	2.65	91.5	<b>71.8</b>	20350	846.0	1020.0	102.0	14.90	3.04

Designación del Perfil	Altura	Ala	Espesor Alma	Espesor Ala	Radios de Acuerdo		Centro de Gravedad	Sección Nominal	Masa Nominal	Momento de Inercia		Módulo Resistente		Radio de Giro	
	h	b	a	e	r	r <sub>1</sub>	e <sub>y</sub>	S	G	I <sub>x</sub>	I <sub>y</sub>	W <sub>x</sub>	W <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>
	mm	mm	mm	mm	mm	mm	Cm	cm <sup>2</sup>	Kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	Cm	Cm
UL 40x20	40	20	5.0	5.0	5.0	2.5	0.67	3.66	<b>2.9</b>	7.58	1.1	3.79	0.86	1.44	0.56
UL 50x25	50	25	5.0	6.0	6.0	3.0	0.81	4.92	<b>3.9</b>	16.80	2.5	6.73	1.48	1.85	0.71
UL 50x38	50	38	5.0	7.0	7.0	3.5	1.37	7.12	<b>5.6</b>	26.40	3.1	10.6	3.75	1.92	1.13
UL 65x42	65	42	5.5	7.5	7.5	4.0	1.42	9.03	<b>7.1</b>	57.50	14.1	17.7	5.07	2.52	1.25

# PERFILES IPN

MEDIDAS Y PROPIEDADES  
DE LA SECCIÓN

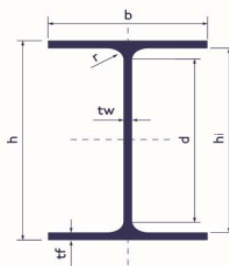


COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

Designación del Perfil	Altura	Ala	Espesor Alma	Espesor Ala	Radios de Acuerdo		Sección Nominal	Masa Nominal	Momento de Inercia		Módulo Resistente		Radio de Giro	
	h	b	a	e	r	r <sub>1</sub>	S	G	I <sub>x</sub>	I <sub>y</sub>	W <sub>x</sub>	W <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>
	mm	mm	mm	mm	mm	mm	cm <sup>2</sup>	Kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
IPN 80	80	42	3.9	5.9	3.9	2.3	7.6	<b>5.9</b>	77.8	6.29	19.5	3.00	3.20	0.91
IPN 100	100	50	4.5	6.8	4.5	2.7	10.6	<b>8.3</b>	171	12.2	34.2	4.88	4.01	1.07
IPN 120	120	58	5.1	7.7	5.1	3.1	14.2	<b>11.2</b>	328	21.5	54.7	7.41	4.81	1.23
IPN 140	140	66	5.7	8.6	5.7	3.4	18.3	<b>14.3</b>	573	35.2	81.9	10.7	5.61	1.40
IPN 160	160	74	6.3	9.5	6.3	3.8	22.8	<b>17.9</b>	935	54.7	117	14.8	6.40	1.55
IPN 180	180	82	6.9	10.4	6.9	4.1	27.9	<b>21.9</b>	1450	81.3	161	19.8	7.20	1.71
IPN 200	200	90	7.5	11.3	7.5	4.5	33.5	<b>26.2</b>	2140	117	214	26.0	8.00	1.87
IPN 220	220	98	8.1	12.2	8.1	4.9	39.6	<b>31.1</b>	3060	162	278	33.1	8.80	2.02
IPN 240	240	106	8.7	13.1	8.7	5.2	46.1	<b>36.2</b>	4250	221	354	41.7	9.59	2.20
IPN 260	260	113	9.4	14.1	9.4	5.6	53.3	<b>41.9</b>	5740	288	442	51.0	10.4	2.32
IPN 280	280	119	10.1	15.2	10.1	6.1	61.0	<b>47.9</b>	7590	364	542	61.2	11.1	2.45
IPN 300	300	125	10.8	16.2	10.8	6.5	69.1	<b>54.2</b>	9800	451	653	72.2	11.9	2.56
IPN 320	320	131	11.5	17.3	11.5	6.9	77.7	<b>61.0</b>	12510	555	782	84.7	12.7	2.67
IPN 340	340	137	12.2	18.3	12.2	7.3	86.7	<b>68.0</b>	15700	674	923	98.4	13.5	2.80
IPN 360	360	143	13.0	19.5	13.0	7.8	97.0	<b>76.0</b>	19610	818	1090	114	14.2	2.90
IPN 400	400	155	14.4	21.6	14.4	8.6	118.0	<b>92.4</b>	29210	1160	1460	149	15.7	3.13
IPN 450	450	170	16.2	24.3	16.2	9.7	147.0	<b>115.0</b>	45850	1730	2040	203	17.7	3.43
IPN 500	500	185	18.0	27.0	18.0	10.8	179.0	<b>141.0</b>	68740	2480	2750	268	19.6	3.72

# PERFILES IPE

MEDIDAS Y PROPIEDADES  
DE LA SECCIÓN

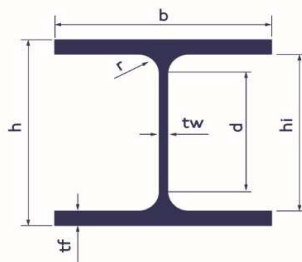


COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

Designación del Perfil	Altura	Ala	Espesor Alma	Espesor Ala	Radios de Acuerdo	Altura del alma		Sección Nominal	Masa Nominal	Momento de Inercia		Módulo Resistente		Radio de Giro	
	h	b	tw	tf	r	d	hi	S	G	I <sub>x</sub>	I <sub>y</sub>	W <sub>x</sub>	W <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>
	mm	mm	mm	mm	mm	mm	mm	cm <sup>2</sup>	Kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
IPE 100	100	55	4.1	5.7	7	74	88.60	10.3	<b>8.1</b>	171.0	15.9	34.2	5.78	4.07	1.24
IPE 120	120	64	4.4	6.3	7	93	107.40	13.2	<b>10.4</b>	318.0	27.7	53.0	8.66	4.91	1.45
IPE 140	140	73	4.7	6.9	7	112	126.20	16.4	<b>12.9</b>	541.0	44.9	77.3	12.3	5.74	1.65
IPE 160	160	82	5.0	7.4	9	127	145.20	20.1	<b>15.8</b>	869.0	68.3	109.0	16.7	6.58	1.84
IPE 180	180	91	5.3	8.0	9	146	164.00	23.9	<b>18.8</b>	1320.0	101.0	147.0	22.2	7.43	2.06
IPE 200	200	100	5.6	8.5	12	159	183.00	28.5	<b>22.4</b>	1740.0	142.4	194.0	28.4	8.25	2.23
IPE 220	220	110	5.9	9.2	12	177	201.60	33.4	<b>26.2</b>	2770.0	205.0	252.0	37.3	9.11	2.48
IPE 240	240	120	6.2	9.8	15	190	220.40	39.1	<b>30.7</b>	3890.0	284.0	324.0	47.3	9.97	2.70
IPE 270	270	135	6.6	10.2	15	219	249.60	45.9	<b>36.1</b>	5790.0	420.0	429.0	62.2	11.20	3.02
IPE 300	300	150	7.1	10.7	15	248	278.60	53.8	<b>42.2</b>	8360.0	604.0	557.0	80.5	12.50	3.35
IPE 330	330	160	7.5	11.5	18	271	307.00	62.6	<b>49.1</b>	11770.0	788.1	713.0	98.5	13.70	3.55
IPE 360	360	170	8.0	12.7	18	298	334.60	72.7	<b>57.1</b>	16270.0	1040.0	904.0	123.0	15.00	3.78
IPE 400	400	180	8.6	13.5	21	331	373.00	84.5	<b>66.3</b>	23130.0	1320.0	1160.0	146.0	16.50	3.95
IPE 450	450	190	9.4	14.6	21	378	420.80	98.8	<b>77.6</b>	33740.0	1680.0	1500.0	176.0	18.50	4.12
IPE 500	500	200	10.2	16.0	21	426	468.00	116.0	<b>90.7</b>	48200.0	2140.0	1930.0	214.0	20.40	4.30

# PERFILES HEB

MEDIDAS Y PROPIEDADES  
DE LA SECCIÓN

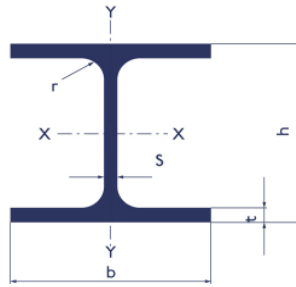


COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

Designación del Perfil	Altura	Ala	Espesor Alma	Espesor Ala	Radios de Acuerdo	Dimensiones interiores del alma		Sección Nominal	Masa Nominal	Momento de Inercia		Módulo Resistente		Radio de Giro	
	h	b	tw	tf	r	d	hi	S	G	I <sub>x</sub>	I <sub>y</sub>	W <sub>x</sub>	W <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>
	mm	mm	mm	mm	mm	mm	mm	cm <sup>2</sup>	Kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
HEB 100	100	100	6.0	10.0	12	56	80	26.0	<b>20.4</b>	450.0	167.0	89.9	33.5	4.16	2.53
HEB 120	120	120	6.5	11.0	12	74	98	34.0	<b>26.7</b>	864.0	318.0	144.0	52.9	5.04	3.06
HEB 140	140	140	7.0	12.0	12	92	116	43.0	<b>33.7</b>	1510.0	550.0	216.0	78.5	5.93	3.58
HEB 160	160	160	8.0	13.0	15	104	134	54.3	<b>42.6</b>	2490.0	889.0	311.0	111.0	6.77	4.05
HEB 180	180	180	8.5	14.0	15	122	152	65.3	<b>51.2</b>	3830.0	1360.0	426.0	151.0	7.66	4.56
HEB 200	200	200	9.0	15.0	18	134	170	78.1	<b>61.3</b>	5700.0	2000.0	570.0	200.0	8.54	5.06
HEB 220	220	220	9.5	16.0	18	152	188	91.0	<b>71.5</b>	8090.0	2840.0	736.0	258.0	9.43	5.59
HEB 240	240	240	10.0	17.0	21	164	206	106.0	<b>83.2</b>	11260.0	3920.0	938.0	327.0	10.30	6.08
HEB 260	260	260	10.0	17.5	24	177	225	118.0	<b>93.0</b>	14920.0	5130.0	1150.0	395.0	11.20	6.59
HEB 280	280	280	10.5	18.0	24	196	244	131.0	<b>103.0</b>	19270.0	6590.0	1380.0	471.0	12.10	7.09
HEB 300	300	300	11.0	19.0	27	208	262	149.0	<b>117.0</b>	25170.0	8560.0	1680.0	571.0	13.00	7.58
HEB 320	320	300	11.5	20.5	27	225	279	161.0	<b>127.0</b>	30820.0	9240.0	1930.0	616.0	13.80	7.58
HEB 340	340	300	12.0	21.5	27	243	297	171.0	<b>134.0</b>	36660.0	9690.0	2160.0	646.0	14.60	7.53
HEB 360	360	300	12.5	22.5	27	261	315	181.0	<b>142.0</b>	43190.0	10140.0	2400.0	676.0	15.40	7.48
HEB 400	400	300	13.5	24.0	27	298	352	198.0	<b>155.0</b>	57680.0	10820.0	2880.0	721.0	17.10	7.39
HEB 450	450	300	14.0	26.0	27	344	398	218.0	<b>171.0</b>	79890.0	11720.0	3550.0	781.0	19.10	7.33
HEB 500	500	300	14.5	28.0	27	390	444	239.0	<b>187.0</b>	107200.0	12620.0	4290.0	842.0	21.20	7.27

# PERFILES HEA

MEDIDAS Y PROPIEDADES  
DE LA SECCIÓN

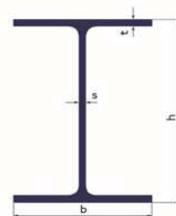


COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

Designación del Perfil	Altura	Ala	Espesor Alma	Espesor Ala	Radios de Acuerdo	Dimensiones interiores del alma		Sección Nominal	Masa Nominal	Momento de Inercia		Módulo Resistente		Radio de Giro	
	h	b	s	t	r	d	hi	S	G	I <sub>x</sub>	I <sub>y</sub>	W <sub>x</sub>	W <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>
IPBI	mm	mm	mm	mm	mm	mm	mm	cm <sup>2</sup>	Kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
100 (H)	96	100	5.0	8.0	12	56	80	21.2	<b>16.7</b>	349	134.0	72.8	26.8	4.06	2.51
120 (H)	114	120	5.0	8.0	12	74	98	25.3	<b>19.9</b>	606	231.0	106.0	38.5	4.89	3.02
140 (H)	133	140	5.5	8.5	12	92	116	31.4	<b>24.7</b>	1030	389.0	155.0	55.6	5.73	3.52
160 (H)	152	160	6.0	9.0	15	104	134	38.8	<b>30.4</b>	1670	616.0	220.0	77.0	6.56	3.98
180 (H)	171	180	6.0	9.5	15	122	152	45.3	<b>35.5</b>	2510	925.0	294.0	103.0	7.44	4.52
200 (H)	190	200	6.5	10.0	18	134	170	53.8	<b>42.3</b>	3690	1340.0	389.0	134.0	8.28	4.99
220 (H)	210	220	7.0	11.0	18	152	188	64.3	<b>50.5</b>	5410	1950.0	515.0	177.0	9.17	5.51
240 (H)	230	240	7.5	12.0	21	164	206	76.8	<b>60.3</b>	7760	2770.0	675.0	231.0	10.10	6.01
260 (H)	250	260	7.5	12.5	24	177	225	86.8	<b>68.2</b>	10450	3679.0	836.0	283.0	11.00	6.51
280 (H)	270	280	8.0	13.0	24	196	244	97.3	<b>76.4</b>	13670	4760.0	1010.0	340.0	11.90	6.99
300 (H)	290	300	8.5	14.0	27	208	262	113.0	<b>88.3</b>	18260	6310.0	1260.0	421.0	12.80	7.51
320 (I)	310	300	9.0	15.5	27	225	279	124.0	<b>97.6</b>	22930	6990.0	1480.0	466.0	13.60	7.51
340 (I)	330	300	9.5	16.5	27	243	297	133.0	<b>105.0</b>	27690	7440.0	1680.0	496.0	14.40	7.48
360 (I)	350	300	10.0	17.5	27	261	315	143.0	<b>112.0</b>	33090	7890.0	1890.0	526.0	15.20	7.43
400 (I)	390	300	11.0	19.0	27	298	352	159.0	<b>125.0</b>	45070	8560.0	2310.0	571.0	16.80	7.34
450 (I)	440	300	11.5	21.0	27	344	398	178.0	<b>140.0</b>	63720	9470.0	2900.0	631.0	18.90	7.29
500 (I)	490	300	12.0	23.0	27	390	444	198.0	<b>155.0</b>	86970	10370.0	3550.0	691.0	21.00	7.24

# PERFILES W (I)

PERFIL LAMINADO CON CARAS INTERNAS PARALELAS  
MEDIDAS Y PROPIEDADES DE LA SECCIÓN

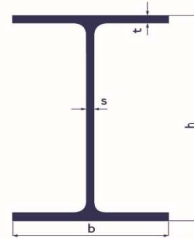


COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

Designación del Perfil	Altura	Ala	Alma	Espesor ala	Seccion Nominal	Masa Nominal	Momento de Inercia		Módulo Resistente		Radio de Giro		Designación del Perfil
	h	b	s	t	s	G	I <sub>x</sub>	I <sub>y</sub>	W <sub>x</sub>	W <sub>y</sub>	r <sub>x</sub>	r <sub>y</sub>	
mm x kg/m	mm	mm	mm	mm	mm <sup>2</sup>	kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm	in x lb/ft
W 150 x 13,0	148	100	4.3	4.9	1,630.0	12.8	635	82	85.8	16.4	6.18	2.22	W 6 x 8,5
W 150 x 18,0	153	102	5.8	7.1	2,290.0	18.0	939	126	122.8	24.7	6.34	2.32	W 6 x 12
W 150 x 24,0	160	102	6.6	10.3	3,060.0	24.0	1,384	183	173.0	35.9	6.63	2.41	W 6 x 16
W 200 x 15,0	200	100	4.3	5.2	1,910.0	15.0	1,305	87	130.5	17.4	8.20	2.12	W 8 x 10
W 200 x 19,3	203	102	5.8	6.5	2,480.0	19.5	1,686	116	166.1	22.7	8.19	2.14	W 8 x 13
W 200 x 22,5	206	102	6.2	8.0	2,860.0	22.5	2,029	142	197.0	27.9	8.37	2.22	W 8 x 15
W 200 x 26,6	207	133	5.8	8.4	3,390.0	26.6	2,611	330	252.3	49.6	8.73	3.10	W 8 x 18
W 200 x 31,3	210	134	6.4	10.4	3,970.0	31.2	3,168	410	301.7	61.2	8.86	3.19	W 8 x 21
W 250 x 17,9	251	101	4.8	5.3	2,280.0	17.9	2,291	91	182.6	18.1	9.96	1.99	W 10 x 12
W 250 x 22,3	254	102	5.8	6.9	2,850.0	22.4	2,939	123	231.4	24.1	10.09	2.06	W 10 x 15
W 250 x 25,3	257	102	6.1	8.4	3,220.0	25.3	3,473	149	270.2	29.3	10.31	2.14	W 10 x 17
W 250 x 28,4	260	102	6.4	10.0	3,630.0	28.5	4,046	178	311.2	34.8	10.51	2.20	W 10 x 19
W 250 x 32,7	258	146	6.1	9.1	4,190.0	32.9	4,937	473	382.7	64.8	10.83	3.35	W 10 x 22
W 250 x 38,5	262	147	6.8	11.2	4,910.0	38.5	6,057	594	462.4	80.8	11.05	3.46	W 10 x 26
W 250 x 44,8	266	148	7.6	13.0	5,700.0	44.7	7,158	704	538.2	95.1	11.15	3.50	W 10 x 30
W 310 x 21,0	303	101	5.1	5.7	2,680.0	21.0	3,776	98	249.2	19.5	11.77	1.90	W 12 x 14
W 310 x 23,8	305	101	5.6	6.7	3,040.0	23.9	4,346	116	285.0	22.9	11.89	1.94	W 12 x 16
W 310 x 28,3	309	102	6.0	8.9	3,590.0	28.2	5,500	158	356.0	31.0	12.28	2.08	W 12 x 19
W 310 x 32,7	313	102	6.6	10.8	4,180.0	32.8	6,570	192	419.8	37.6	12.49	2.13	W 12 x 22
W 310 x 38,7	310	165	5.8	9.7	4,940.0	38.8	8,581	727	553.6	88.1	13.14	3.82	W 12 x 26
W 310 x 44,5	313	166	6.6	11.2	5,670.0	44.5	9,997	855	638.8	103.0	13.22	3.87	W 12 x 30
W 310 x 52,0	317	167	7.6	13.2	6,650.0	52.2	11,909	1,026	751.4	122.9	13.33	3.91	W 12 x 35
W 310 x 60,0	303	203	7.5	13.1	7,610.0	59.7	12,908	1,829	852.0	228.7	13.02	4.90	W 12 x 40
W 310 x 67,0	306	204	8.5	14.6	8,520.0	66.9	14,559	2,069	951.5	202.8	13.06	4.92	W 12 x 45
W 310 x 74,0	310	205	9.4	16.3	9,480.0	74.4	16,501	2,344	1,064.6	180.2	13.17	4.96	W 12 x 50
W 360 x 32,9	349	127	5.8	8.5	4,190.0	32.9	8,358	291	479.0	45.9	14.09	2.63	W 14 x 22
W 360 x 39,0	353	128	6.5	10.7	4,960.0	38.9	10,331	375	585.3	58.6	14.35	2.73	W 14 x 26
W 360 x 44,0	352	128	6.9	9.8	5,710.0	44.8	12,258	818	696.5	95.7	14.58	3.77	W 14 x 30
W 360 x 51,0	355	171	7.2	11.6	6,450.0	50.6	14,222	968	801.2	113.3	14.81	3.87	W 14 x 34
W 360 x 57,8	358	172	7.9	13.1	7,230.0	56.8	16,143	1,113	901.8	129.4	14.92	3.92	W 14 x 38
W 360 x 64,0	347	203	7.7	13.5	8,130.0	63.8	17,890	1,885	1,031.1	185.7	14.80	4.80	W 14 x 43
W 360 x 72,0	350	204	8.6	15.1	9,100.0	71.4	20,169	2,140	1,152.5	209.8	14.86	4.84	W 14 x 48
W 360 x 79,0	354	205	9.4	15.8	10,100.0	79.3	22,713	2,416	1,283.2	235.7	14.98	4.89	W 14 x 53
W 410 x 38,8	399	140	6.4	8.8	4,950.0	38.9	12,777	404	640.5	57.7	15.94	2.83	W 16 x 26
W 410 x 46,1	403	140	7.0	11.2	5,880.0	46.2	15,690	514	778.7	73.4	16.27	2.95	W 16 x 31
W 410 x 53,0	403	177	7.5	10.9	6,840.0	53.7	18,734	1,009	929.7	114.0	16.55	3.84	W 16 x 36
W 410 x 60,0	407	178	7.7	12.8	7,610.0	59.7	21,707	1,205	1,066.7	135.4	16.88	3.98	W 16 x 40
W 410 x 67,0	410	179	8.8	14.4	8,580.0	67.4	24,678	1,379	1,203.8	154.1	16.91	4.00	W 16 x 45
W 410 x 75,0	413	180	9.7	16.0	9,480.0	74.4	27,616	1,559	1,337.3	173.2	16.98	4.03	W 16 x 50
W 410 x 85,0	417	181	10.9	18.2	10,800.0	84.8	31,658	1,804	1,518.4	199.3	17.07	4.08	W 16 x 57
W 460 x 52,0	450	152	7.6	10.8	6,650.0	52.2	21,370	634	949.8	83.5	17.91	3.09	W 18 x 35
W 460 x 60,0	455	153	8.0	13.3	7,610.0	59.7	25,652	796	1,127.6	104.1	18.35	3.23	W 18 x 40
W 460 x 66,0	459	154	9.1	15.4	8,710.0	68.4	29,851	941	1,300.7	122.2	18.46	3.28	W 18 x 46
W 460 x 74,0	457	190	9.0	14.5	9,480.0	74.4	33,415	1,661	1,462.4	174.8	18.77	4.18	W 18 x 50
W 460 x 82,0	460	191	9.9	16.0	10,600.0	83.2	37,157	1,862	1,615.5	195.0	18.84	4.22	W 18 x 55
W 460 x 89,0	463	192	10.5	17.7	11,400.0	89.5	41,105	2,093	1,775.6	218.0	18.98	4.28	W 18 x 60
W 460 x 97,0	466	193	11.4	19.0	12,300.0	96.6	44,658	2,283	1,916.7	236.6	19.03	4.30	W 18 x 65
W 460 x 106,0	469	194	12.6	20.6	13,400.0	105.2	48,978	2,515	2,088.6	259.3	19.04	4.32	W 18 x 71
W 530 x 66,0	525	165	8.9	11.4	8,390.0	65.9	34,971	857	1,332.2	103.9	20.46	3.20	W 21 x 44
W 530 x 72,0	524	207	9.0	10.9	9,180.0	72.1	39,969	1,615	1,525.5	156.0	20.89	4.20	W 21 x 48
W 530 x 74,0	529	186	9.7	13.6	9,480.0	74.4	40,969	1,041	1,548.9	125.5	20.76	3.31	W 21 x 50
W 530 x 82,0	528	208	9.5	13.3	10,500.0	82.4	47,569	2,028	1,801.8	194.1	21.34	4.41	W 21 x 55
W 530 x 85,0	535	186	10.3	16.5	10,800.0	84.8	48,453	1,263	1,811.3	152.2	21.21	3.42	W 21 x 57
W 530 x 92,0	533	209	10.2	15.6	11,800.0	92.6	55,157	2,379	2,069.7	227.6	21.65	4.50	W 21 x 62
W 530 x 101,0	537	210	10.9	17.4	12,900.0	101.3	62,198	2,693	2,316.5	256.5	21.87	4.55	W 21 x 68
W 530 x 109,0	539	211	11.6	18.8	13,900.0	109.1	67,226	2,952	2,494.5	279.8	21.94	4.60	W 21 x 73
W 530 x 123,0	544	212	13.1	21.2	15,700.0	123.2	76,577	3,378	2,815.3	318.7	22.03	4.63	W 21 x 83
W 530 x 138,0	549	214	14.7	23.6	17,600.0	138.2	87,079	3,904	3,172.3	364.8	22.13	4.69	W 21 x 93
W 610 x 82,0	599	178	10.0	12.8	10,500.0	82.4	56,628	1,210	1,890.8	135.9	23.21	3.39	W 24 x 55
W 610 x 92,0	603	179	10.9	15.0	11,700.0	91.8	65,277	1,442	2,165.1	161.1	23.48	3.49	W 24 x 62
W 610 x 101,0	603	228	10.5	14.9	13,000.0	102.1	77,003	2,951	2,554.0	258.8	24.31	4.76	W 24 x 68
W 610 x 113,0	608	228	11.2	17.3	14,500.0	113.8	88,196	3,426	2,901.2	300.5	24.64	4.86	W 24 x 76
W 610 x 125,0	612	229	11.9	19.6	15,900.0	124.8	99,184	3,933	3,241.3	343.5	24.89	4.96	W 24 x 84
W 610 x 140,0	617	230	13.1	22.2	17,900.0	140.5	112,619	4,515	3,650.5	392.6	25.06	5.02	W 24 x 94
W 610 x 153,0	623	229	14.0	24.9	19,600.0	153.9	125,783	4,999	4,038.0	436.6	25.30	5.04	W 24 x 103
W 610 x 155,0	611	324	12.7	19.0	19,700.0	154.6	129,583	10,783	4,241.7	665.6	25.58	7.38	W 24 x 104
W 610 x 174,0	616	325	14.0	21.6	22,200.0	174.3	147,754	12,374	4,797.2	761.5	25.75	7.45	W 24 x 117
W 610 x 195,0	622	327	15.4	24.4	24,800.0	194.7	168,484	14,240	5,417.5	870.9	25.96	7.55	W 24 x 131
W 610 x 217,0	628	328	16.5	27.7	27,700.0	217.4	191,395	16,316	6,095.4	994.9	26.22	7.66	W 24 x 146

# PERFILES W (H)

PERFIL LAMINADO CON CARAS  
INTERNAS PARALELAS  
MEDIDAS Y PROPIEDADES DE LA SECCIÓN



COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

Designación del Perfil	Altura	Ala	Alma	Espesor ala	Seccion Nominal	Masa Nominal	Momento de Inercia		Módulo Resistente		Radio de Giro		Designación del Perfil
	h	b	s	t	s	G	I <sub>x</sub>	I <sub>y</sub>	W <sub>x</sub>	W <sub>y</sub>	r <sub>x</sub>	r <sub>y</sub>	
mm x kg/m	mm	mm	mm	mm	mm <sup>2</sup>	kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm	in x lb/ft
W 150 x 22,5	152	152	5.8	6.6	2,860.0	22.5	1,229	387	161.7	50.9	6.51	3.65	W 6 x 15
W 150 x 29,8	157	153	6.6	9.3	3,790.0	29.8	1,739	556	221.5	72.6	6.72	3.80	W 6 x 20
W 150 x 37,1	162	154	8.1	11.6	4,740.0	37.2	2,244	707	277.0	91.8	6.85	3.84	W 6 x 25
W 200 x 35,9	201	165	6.2	10.2	4,570.0	35.9	3,437	764	342.0	92.6	8.67	4.09	W 8 x 24
W 200 x 41,7	205	166	7.2	11.8	5,320.0	41.8	4,114	901	401.4	108.5	8.77	4.10	W 8 x 28
W 200 x 46,1	203	203	7.2	11.0	5,890.0	46.2	4,543	1,535	447.6	151.2	8.81	5.12	W 8 x 31
W 200 x 52,0	206	204	7.9	12.8	6,650.0	52.2	5,298	1,784	514.4	174.9	8.90	5.16	W 8 x 35
HP 200 x 53,0	204	207	11.3	11.3	6,840.0	53.7	4,977	1,673	488.0	161.7	8.55	4.96	HP 8 x 36
W 200 x 59,0	210	205	9.1	14.2	7,550.0	59.3	6,140	2,041	584.8	199.1	8.99	5.18	W 8 x 40
W 200 x 71,0	216	206	10.2	17.4	9,100.0	71.4	7,660	2,537	709.2	246.3	9.17	5.28	W 8 x 48
W 200 x 86,0	222	209	13.0	20.6	11,000.0	86.4	9,498	3,139	855.7	300.4	9.26	5.32	W 8 x 58
W 200 x 100,0	229	210	14.5	23.7	12,700.0	99.7	11,355	3,664	991.7	349.0	9.45	5.37	W 8 x 67
HP 250 x 62,0	246	256	10.5	10.7	8,000.0	62.8	8,728	2,995	709.6	234.0	10.47	6.13	HP 10 x 42
W 250 x 73,0	253	254	8.6	14.2	9,290.0	72.9	11,257	3,880	889.9	305.5	11.02	6.47	W 10 x 49
W 250 x 80,0	256	255	9.4	15.6	10,200.0	80.1	12,550	4,313	980.5	338.3	11.10	6.51	W 10 x 54
HP 250 x 85,0	254	260	14.4	14.4	10,800.0	84.8	12,280	4,225	966.9	325.0	10.64	6.24	HP 10 x 57
W 250 x 89,0	260	256	10.7	17.3	11,400.0	89.5	14,237	4,841	1,095.1	378.2	11.18	6.52	W 10 x 60
W 250 x 101,0	264	257	11.9	19.6	12,900.0	101.3	16,352	5,549	1,238.8	431.8	11.27	6.57	W 10 x 68
W 250 x 115,0	269	259	13.5	22.1	14,600.0	114.6	18,920	6,405	1,406.7	494.6	11.38	6.62	W 10 x 77
W 250 x 131,0	275	261	15.4	25.1	16,700.0	131.1	22,243	7,448	1,617.7	570.7	11.51	6.66	W 10 x 88
W 250 x 149,0	282	263	17.3	28.4	19,000.0	149.2	26,027	8,624	1,845.9	655.8	11.69	6.73	W 10 x 100
W 250 x 167,0	289	265	19.2	31.8	21,200.0	166.4	30,110	9,880	2,083.7	745.7	11.86	6.79	W 10 x 112
HP 310 x 79,0	299	306	11.0	11.0	10,000.0	78.5	16,316	5,258	1,091.3	343.7	12.77	7.25	HP 12 x 53
HP 310 x 93,0	303	308	13.1	13.1	11,900.0	93.4	19,682	6,387	1,299.1	414.7	12.85	7.32	HP 12 x 63
W 310 x 97,0	308	305	9.9	15.4	12,300.0	96.6	22,284	7,286	1,447.0	477.8	13.43	7.68	W 12 x 65
W 310 x 107,0	311	306	10.9	17.0	13,600.0	106.8	24,839	8,123	1,597.3	530.9	13.49	7.72	W 12 x 72
HP 310x110,0	308	310	15.4	15.5	14,100.0	110.7	23,703	7,707	1,539.1	497.3	12.97	7.39	HP 12 x 74
W 310 x 117,0	314	307	11.9	18.7	15,000.0	117.8	27,563	9,024	1,755.6	587.9	13.56	7.76	W 12 x 79
HP 310x125,0	312	312	17.4	17.4	15,900.0	124.8	27,076	8,823	1,735.6	565.6	13.05	7.45	HP 12 x 84
W 310 x 129,0	318	308	13.1	20.6	16,500.0	129.5	30,819	10,039	1,938.3	651.9	13.65	7.79	W 12 x 87
HP 310 x 132	314	313	18.3	18.3	16,750.0	132.0	28,731	9,371	1,830.0	598.8	13.10	7.48	HP 12 x 89
W 310 x 143,0	323	309	14.0	22.9	18,200.0	142.9	34,812	11,270	2,155.6	729.4	13.81	7.86	W 12 x 96
W 310 x 158,0	327	310	15.5	25.1	20,100.0	157.8	38,681	12,474	2,365.8	804.8	13.88	7.88	W 12 x 106
W 310 x 179,0	333	313	18.0	28.1	22,800.0	179.0	44,580	14,378	2,677.5	918.7	13.99	7.94	W 12 x 120
W 310 x 202,0	341	315	20.1	31.8	25,700.0	201.7	52,030	16,589	3,051.6	1,053.2	14.19	8.01	W 12 x 136
W 360 x 91,0	353	254	9.5	16.4	11,500.0	90.3	26,755	4,483	1,515.9	353.0	15.19	6.22	W 14 x 61
W 360 x 101,0	357	255	10.5	18.3	12,900.0	101.3	30,279	5,063	1,696.3	397.1	15.29	6.25	W 14 x 68
W 360 x 110,0	360	256	11.4	19.9	14,100.0	110.7	33,155	5,570	1,841.9	435.2	15.36	6.29	W 14 x 74
W 360 x 122,0	363	257	13.0	21.7	15,500.0	121.7	36,599	6,147	2,016.5	478.4	15.35	6.29	W 14 x 82