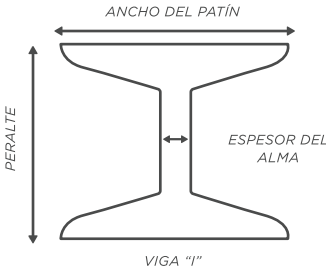


INFORMACIÓN TÉCNICA

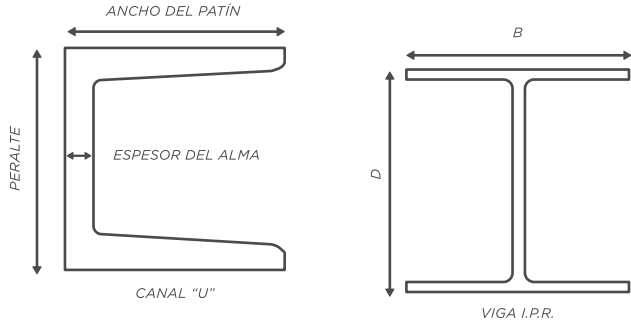
Viga “I” (tipo americano)

PERALTE		PESO		ANCHO DEL PATÍN		ESPESOR DEL ALMA	
in	mm	kg/m	lb/ft	mm	in	mm	in
3	76.2	8.5	5.7	59.18	2.33	4.32	0.17
4	101.6	11.5	7.7	67.56	2.66	4.83	0.19
5	127.0	14.9	10.0	76.20	3.00	5.33	0.21
6	152.4	18.6	12.5	84.58	3.33	5.84	0.23
8	203.2	27.4	18.4	101.60	4.00	6.86	0.27



Canal “U”

PERALTE		PESO		ANCHO DEL PATÍN		ESPESOR DEL ALMA	
in	mm	kg/m	lb/ft	mm	in	mm	in
3	76.2	5.21	3.50	35.000	1.375	3.420	0.135
3	76.2	6.10	4.10	35.814	1.410	4.318	0.170
4	101.6	8.04	5.40	40.132	1.580	4.572	0.180
6	152.4	12.20	8.20	48.768	1.920	5.080	0.200
6	152.4	15.62	10.50	51.664	2.034	7.976	0.314
6	152.4	19.34	13.00	54.788	2.157	11.100	0.437
8	203.2	17.11	11.50	57.404	2.260	5.588	0.220
8	203.2	20.46	13.75	59.512	2.343	7.700	0.303
8	203.2	27.90	18.75	64.186	2.527	12.370	0.487
10	254.0	22.77	15.30	66.040	2.600	6.096	0.240
10	254.0	29.76	20.00	60.571	2.739	9.627	0.379
10	254.0	37.20	25.00	73.304	2.886	13.360	0.526
10	254.0	44.64	30.00	77.038	3.033	17.094	0.673
12	304.8	30.80	20.70	74.727	2.942	7.163	0.282
12	304.8	37.20	25.00	77.394	3.047	9.830	0.387
12	304.8	44.64	30.00	80.518	3.170	12.954	0.510



- 1) El peso es de acuerdo a lo establecido en la norma ASTM-A-6.
- 2) El acero es de acuerdo a las normas ASTM-A-36 y Dual ASTM A36 / A572 G50 con las siguientes propiedades mecánicas.
- 3) Las vigas se fabrican bajo la norma ASTM-A-992.

(Tomar solo como referencia). El peso está calculado con mediciones nominales normales y considerando que un metro cúbico de acero rolado tiene un peso de 7,850 kg.

Viga I.P.R. (ASTM-A-6)

DESIGNACIÓN	lb/ft	kg/m	ÁREA cm²	PERALTE (d) mm	ESPESOR DEL ALMA (tf) mm	PATÍN ANCHO (bf) mm	ESPESOR (tf) mm
4" X 4"	13	19	3.83	106.00	7.10	103.00	8.80
	9	13	17.29	149.86	4.32	100.08	5.46
	12	18	22.90	153.16	5.84	101.60	7.11
6" X 4"	16	24	30.58	159.51	6.60	102.36	10.29
	15	22	28.58	152.15	5.84	152.15	6.60
	20	30	37.87	157.48	6.60	152.91	9.27
6" X 6"	25	37	47.35	162.05	8.13	154.43	11.56
	10	15	19.10	200.41	4.32	102.00	5.21
	13	19	24.77	202.95	5.84	101.60	6.48
8" X 4"	15	22	28.65	205.99	6.22	101.98	8.00
8" X 5 1/4"	18	27	33.94	206.76	5.84	133.35	8.38
	21	31	39.74	210.31	6.35	133.86	10.16
8" X 6 1/2"	24	36	45.68	201.42	6.22	164.97	10.16
	28	42	53.23	204.72	7.24	165.99	11.81
8" X 8"	31	46	58.90	203.20	7.24	203.07	11.05
	35	52	66.45	206.25	7.87	203.71	12.57
	40	60	75.48	209.55	9.14	204.98	14.22
10" X 4"	48	71	90.97	215.90	10.16	205.99	17.40
	58	86	110.32	222.25	12.95	208.79	20.57
	67	100	127.10	228.60	14.48	210.31	23.75
10" X 5 3/4"	12	18	22.84	250.70	4.83	100.58	5.33
	15	22	28.45	253.75	5.84	101.60	6.86
	17	25	32.19	256.79	6.10	101.85	8.38
10" X 8"	19	28	36.26	260.10	6.35	102.11	10.03
	22	33	41.87	258.32	6.10	146.05	9.14
	26	39	49.10	262.38	6.60	146.56	11.18
10" X 10"	30	45	57.03	265.94	7.62	147.57	12.95
	33	49	62.65	247.14	7.37	202.18	11.05
	39	58	74.19	251.97	8.00	202.82	13.46
12" X 4"	45	67	85.81	256.54	8.89	203.71	15.75
	49	73	92.90	253.49	8.64	254.00	14.22
	54	80	97.29	256.29	9.40	254.76	15.62
12" X 6 1/2"	60	89	113.55	259.59	10.67	256.03	17.27
	68	101	129.03	264.16	11.94	257.30	19.56
	77	115	145.81	269.24	13.46	258.83	22.10
12" X 8"	88	131	167.10	275.34	15.37	260.73	25.15
	100	149	189.68	281.94	17.27	262.64	28.45
	112	167	212.26	288.54	19.18	264.54	31.75
12" X 10"	14	21	26.84	302.51	5.08	100.84	5.72
	16	24	30.39	304.55	5.59	101.35	6.73
	19	28	35.94	308.86	5.97	101.73	8.89
12" X 12"	22	33	41.81	312.67	6.60	102.36	10.80
	26	39	49.35	310.39	5.84	164.85	9.65
	30	45	56.71	313.44	6.60	165.61	11.18
12" X 14 1/2"	35	52	66.45	317.50	7.62	166.62	13.21
	40	60	76.13	303.28	7.49	203.33	13.08
	45	67	85.16	306.32	8.51	204.34	14.61
12" X 16"	50	74	94.84	309.63	9.40	205.23	16.26

DESIGNACIÓN	lb/ft	kg/m	ÁREA cm²	PERALTE (d) mm	ESPESOR DEL ALMA (tf) mm	PATÍN ANCHO (bf) mm	ESPESOR (tf) mm
12" X 10"	53	79	100.64	306.32	8.76	253.87	14.61
	58	86	109.68	309.63	9.14	254.25	16.26
	65	97	123.23	307.85	9.91	304.08	15.37
12" X 12"	72	107	136.13	311.15	10.92	305.82	17.02
	79	118	149.68	314.45	11.94	306.83	18.67
	87	129	165.16	318.26	13.08	307.98	20.57
12" X 14 1/2"	96	143	181.94	322.83	13.97	308.86	22.86
	106	158	201.29	327.41	15.49	310.39	25.15
	120	179	227.74	333.25	18.03	312.93	28.07
12" X 16"	136	202	257.42	340.61	20.07	314.96	31.75
	152	226	288.39	348.23	22.10	316.99	35.56
	170	253	322.58	356.36	24.38	319.28	39.62
12" X 18"	190	283	360.00	365.25	26.92	321.82	44.07
	210	313	398.71	373.63	29.97	324.87	48.26
	230	342	436.77	382.27	32.64	327.53	52.58
12" X 20"	252	375	478.06	391.41	35.43	330.33	57.15
	279	415	528.39	402.59	38.86	333.76	62.74
	305	454	578.06	414.53	41.28	336.17	68.71
12" X 22"	336	500	637.42	427.23	45.09	339.98	75.06
	22	33	41.87	349.00	5.84	127.00	8.51
14" X 5"	26	39	49.61	353.31	6.48	127.64	10.67
	30	45	57.10	351.54	6.86	170.94	9.78
14" X 6 3/4"	34	51	64.52	355.09	7.24	171.32	11.56
	38	57	72.26	358.14	7.87	171.96	13.08
14" X 8"	43	64	81.29	346.96	7.75	203.07	13.46
	48	71	90.97	350.27	8.64	203.96	15.11
14" X 10"	53	79	100.64	353.57	9.40	204.72	16.76
	61	91	115.48	352.81	9.53	253.87	16.38
	68	101	129.03	356.62	10.54	254.89	18.29
14" X 12"	74	110	140.64	359.92	11.43	255.78	19.94
	82	122	155.48	363.47	12.95	257.30	21.72
14" X 14 1/2"	90	134	170.97	356.11	11.18	368.81	18.03
	99	147	187.74	359.66	12.32	369.95	19.81
	109	162	206.45	363.73	13.34	370.97	21.84
14" X 16"	120	179	227.74	367.79	14.99	372.62	23.88
	132	196	250.32	372.36	16.38	374.02	26.16
	145	216	275.48	375.41	17.27	393.70	27.69
14" X 18"	159	237	301.29	380.49	18.92	395.35	30.23
	176	262	334.19	386.59	21.08	397.51	33.27
	193	287	366.45	393.19	22.61	399.03	36.58
14" X 20"	211	314	400.00	399.29	24.89	401.32	39.62
	233	347	441.93	407.42	27.18	403.61	43.69
	257	382	487.74	416.05	29.85	406.27	48.01
14" X 22"	283	421	537.42	425.20	32.77	409.19	52.58
	311	463	589.68	434.85	35.81	412.24	57.40
	342	509	651.61	445.52	39.12	415.54	62.74
14" X 24"	370	551	703.22	455.17	42.04	418.47	67.56
	398	592	754.84	464.57	44.96	421.39	72.26
	426	634	806.45	474.22	47.63	424.05	77.09

DESIGNACIÓN	lb/ft	kg/m	ÁREA cm²	PERALTE (d) mm	ESPESOR DEL ALMA (tf) mm	PATÍN ANCHO (bf) mm	ESPESOR (tf) mm
16" X 5 1/2"	26	39	49.55	398.53	6.35	139.70	8.76
	31	46	58.84	403.35	6.99	140.34	11.18
	36	54	68.39	402.84	7.49	177.42	10.92
16" X 7"	40	60	76.13	406.65	7.75	177.67	12.83
	45	67	85.81	409.70	8.76	178.69	14.35
	50	74	94.84	413.00	9.65	179.58	16.00
16" X 10 1/4"	57	85	108.39	417.32	10.92	180.85	18.16
	67	100	127.10	414.78	10.03	259.97	16.89
	77	115	145.81	419.61	11.56	261.49	19.30
18" X 6"	89	132	169.03	425.45	13.34	263.27	22.23
	100	149	189.68	431.04	14.86	264.80	25.02
	35	52	66.45	449.58	7.62	152.40	10.80
18" X 7 1/2"	40	60	76.13	454.66	8.00	152.78	13.34
	46	68	87.10	458.72	9.14	153.92	15.37
	50	74	94.84	456.95	9.02	190.37	14.48
18" X 11"	55	82	104.52	459.99	9.91	191.26	16.00
	60	89	113.55	463.30	10.54	191.90	17.65
	65	97	123.23	466.09	11.43	192.79	19.05
18" X 11"	71	106	134.19	469.14	12.57	193.93	20.57
	76	113	143.87	462.53	10.80	280.29	17.27
	86	128	163.23	467.11	12.19	281.69	19.56
18" X 11"	97	144	183.87	472.19	13.59	283.08	22.10
	106	158	200.64	475.74	14.99	284.48	23.88
	119	177	226.45	481.84	16.64	286.13	26.92
18" X 11"	130	193	246.45	488.95	17.02	283.46	30.48
	143	213	271.61	495.05	18.54	284.99	33.53
	158	235	298.71	500.89	20.57	287.02	36.58
18" X 11"	175	260	330.97	509.02	22.61	288.93	40.39
	192	286	363.87	516.89	24.38	290.96	44.45
	211	314	400.64	525.02	26.92	293.50	48.51
21" X 6 1/2"	234	348	443.87	534.92	29.46	295.91	53.59
	258	384	489.68	545.08	32.51	298.96	58.42
	283	421	536.77	554.99	35.56	302.01	63.50
21" X 6 1/2"	311	463	590.32	566.93	38.61	304.93	69.60
	44	65	83.87	524.76	8.89	165.10	11.43
	50	74	94.84	529.08	9.65	165.86	13.59
21" X 8 1/4"	57	85	107.74	534.92	10.29	166.50	16.51
	62	92	118.06	533.15	10.16	209.30	15.62
	68	101	129.03	536.70	10.92	210.06	17.40
21" X 8 1/4"	73	109	138.71	539.50	11.56	210.69	18.80
	83	124	156.77	544.32	13.08	212.22	21.21
	93	138	176.13	549.15	14.73	213.87	23.62
21" X 12 1/4"	101	150	192.26	542.54	12.70	312.17	20.32
	111	165	210.97	546.35	13.97	313.44	22.23
	122	182	231.61	550.67	15.24	314.71	24.38
21" X 12 1/4"	132	196	250.32	554.48	16.51	315.98	26.29
	147	219	278.71	560.32	18.29	317.75	29.21
	166	247	315.48	570.99	19.05	315.47	34.54
21" X 12 1/4"	182	271	346.45	577.09	21.08	317.50	37.59
	201	299	381.93	584.96	23.11	319.41	41.40
	223	332	421.93	593.09	25.40	321.95	45.47
24" X 7"	248	369	469.68	603.00	27.94	324.49	50.55
	275	409	516.64	617.22	30.99	327.41	55.63
	55	82	104.52	598.68	10.03	177.93	12.83
24" X 9"	62	92	117.42	603.00	10.92	178.82	14.99
	68	101	129.68	602.74	10.54	227.71	14.86
	76	113	144.52	607.57	11.18	228.35	17.27
24" X 9"	84	125	159.35	612.14	11.94	229.11	19.56
	94	140	178.71	617.47	13.08	230.25	22.23
	103	153	195.48	623.06	13.97	228.60	24.89
24" X 12 3/4"	104	155	197.42	611.12	12.70	323.85	19.05
	117	174	221.94	616.20	13.97	325.12	21.59
	131	195	248.39	621.79	15.37	326.52	24.38
24" X 12 3/4"	146	217	277.42	628.40	16.51	327.66	27.69
	162	241	307.74	635.00	17.91	329.06	30.99
	176	262	333.55	641.10	19.05	327.41	34.04
24" X 12 3/4"	192	286	363.23	646.94	20.57	328.93	37.08
	207	308	391.61	653.03	22.10	330.45	39.88
	229	341	433.55	660.91	24.38	332.99	43.94
24" X 12 3/4"	250	372	474.19	669.04	26.42	334.90	48.01
	279	415	529.03	678.94	29.46	337.95	53.09
	306	455	579.35	689.10	32.00	340.49	57.91
27" X 10"	335	499	634.84	699.01	35.05	343.41	62.99
	370	551	696.77	710.95	38.61	346.96	69.09
	84	125	160.00	678.43	11.68	252.98	16.26
27" X 10"	94	140	178.71	683.77	12.45	253.75	18.22
	102	152	193.55	688.09	13.08	254.38	21.08
	114	170	216.13	693.17	14.48	255.78	23.62
	129	192	243.87	701.80	15.49	254.25	27.94

DESIGNACIÓN	lb/ft	kg/m	ÁREA cm²	PERALTE (d) mm	ESPESOR DEL ALMA (tf) mm	PATÍN ANCHO (bf) mm	ESPESOR (tf) mm
27" X 14"	146	217	276.77	695.45	15.37	354.71	24.77
	161	240	305.81	700.79	16.76	356.11	27.43
	178	265	337.42	706.37	18.42	357.76	30.23
27" X 14"	194	289	367.74	713.99	19.05	356.49	34.04
	217	323	411.61	722.12	21.08	358.52	38.10
	235	350	445.81	727.96	23.11	360.43	40.89
27" X 14"	258	384	488.55	736.09	24.89	362.46	44.96
	307	457	581.93	752.09	29.46	366.90	53.09
	336	500	636.77	762.00	32.00	369.57	57.91
30" X 10 1/2"	368	548	697.42	771.91	35.05	372.49	62.99
	90	134	170.32	750.06	11.94	264.16	15.49
	99	147	187.74	753.11	13.21	265.43	17.02
30" X 10 1/2"	108	161	204.52	757.68	13.84	266.07	19.30
	116	173	220.64	762.25	14.35	266.57	21.59
	124	185	235.48	766.32	14.86	267.08	23.62
30" X 15"	132	196	250.97	769.87	15.62	267.84	25.40
	148	220	280.64	779.02	16.51	266.19	29.97
	173	257	327.74	773.18	16.64	380.62	27.05
30" X 15"	191	284	361.93	779.27	18.03	382.02	30.10
	211	314	400.00	785.88	19.69	383.67	33.40
	235	350	445.16	795.02	21.08	382.40	38.10
30" X 15"	261	388	494.84	802.89	23.62	384.94	41.91
	292	435	552.90	813.05	25.91	387.48	46.99
	326	485	617.42	822.96	28.96	390.40	52.07
30" X 15"	357	531	676.13	833.12	31.50	392.94	56.90
	391	582	741.93	843.03	34.54	395.99	61.98
33" X 11 1/2"	118	176	223.87	834.64	13.97	291.59	18.80
	130	193	247.10	840.49	14.73	292.35	21.72
	141	210	268.39	845.82	15.37	292.99	24.38
33" X 11 1/2"	152	226	288.39	850.65	16.13	293.75	26.80
	169	252	319.35	859.03	17.02	292.10	30.99
	201	299	381.29	855.47	18.16	399.92	29.21
33" X 15 3/4"	221	329	419.35	861.82	19.69	401.45	32.39
	241	359	457.42	868.17	21.08	402.84	35.56
	263	391	499.35	877.06	22.10	401.45	39.88
33" X 15 3/4"	291	433	552.26	884.94	24.38	403.99	43.94
	318	473	603.22	893.06	26.42	406.02	48.01
	354	527	671.61	902.97	29.46	408.94	53.09
33" X 15 3/4"	387	576	735.48	913.13	32.00	411.48	57.91
	135	201	256.13	902.97	15.24	303.53	20.07
36" X 12"	150	223	285.16	910.59	15.88	304.17	23.88
	160	238	303.23	914.65	16.51	304.80	25.91
	170	253	322.58	918.72	17.27	305.56	27.94
36" X 12"	182	271	345.81	922.78	18.42	306.71	29.97
	194	289	367.74	926.85	19.43	307.72	32.00
	210	313	398.71	931.93	21.08	309.37	34.54
36" X 16 1/2"	232	345	439.35	942.85	22.10	307.85	39.88
	256	381	486.45	950.72	24.38	310.26	43.94
	231	334	441.93	926.85	19.30	418.34	32.00
36" X 16 1/2"	247	368	470.32	931.42	20.32	419.35	34.29
	262	390	499.35	935.99	21.34	420.37	36.58
	282	420	538.06	942.59	22.48	421.51	39.88
36" X 16 1/2"	302	449	576.13	948.18	24.00	423.04	42.67
	330	491	628.39	956.82	25.91	422.40	46.99
	361	537	687.10	964.95	28.45	424.94	51.05
36" X 16 1/2"	395	588	757.42	975.61	30.99	427.48	55.88
	441	656	840.00	986.79	34.54	430.91	61.98
	149	222	282.58	970.28	16.00	299.97	21.08
40" X 12"	167	249	316.77	980.19	16.51	299.97	26.04
	183	272	346.45	990.09	16.51	299.97	30.48
	211	314	400.00	1000.00	19.05	299.97	35.94